Elizabeth B. Hurlock

CHILD DEVELOPMENT

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Child Development

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ROBERT REITZFELD

Child Development

FIFTH EDITION

Elizabeth B. Hurlock

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To my daughter, Gail McKnight Beckman

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Preface

IN THIS, the fifth edition of a text which first appeared in 1942, some extensive changes have been made. I hope that these changes will make the book a more valuable learning experience for students and a more helpful teaching aid for their instructors.

Three new chapters have been added. They present some new material and reorganize some material from the fourth edition (but they do not make the fifth edition longer; in fact it is shorter than the fourth). Chapter 1 deals with traditional beliefs—often referred to as "old wives' tales"—that can be psychologically damaging to children. Chapter 2 concentrates on the methods used and difficulties encountered in the scientific study of children. Chapter 13, "Creativity," has been added to reflect the growing scientific interest in this area; it contains materials from various chapters in the fourth edition as well as much that is new.

Perhaps the most radical change is the use of boxes to set off certain important points in each chapter. But students may find the brief chapter summaries—also new in this edition—equally useful.

Users of the previous edition will notice that the chapter bibliographies are somewhat shorter this time. In the main this reflects the elimination of older studies which are referred to in the more recent ones. These citations, too, have been reduced in number. In the fourth edition they had become so frequent as to "get in the way" of the reader. In this edition, no effort has been made to document every point now generally accepted in the field or found in many different published studies. But the bibliographies go beyond the works specifically cited. In this way I acknowledge with thanks the contributions, however indirect, of the studies I examined while preparing this revision. And in this way the comprehensiveness of the bibliographies—a feature that was well received in previous editions—has been preserved.

The many helpful criticisms and suggestions received from friends and professional colleagues have helped to guide the changes that appear in this revision. I take this opportunity to say a grateful "Thank you" for them.

Elizabeth B. Hurlock

CHARLES HARBUTT—MAGNUM

CHAPTER ONE Traditional Beliefs about Children

SINCE THE BEGINNING of history, people have been observing one another and reaching conclusions about how human beings behave. In this way a large number of traditional beliefs have grown up. Most of these beliefs relate to children and adolescents, though no age level has been spared.

Traditional beliefs are called "old wives' tales"—a label suggesting that they are somehow based on what has been found to "work" for a person's physical or psychological welfare. Some traditional beliefs are true and many are partially true. The problem is that they assume that *all* people of a given age are alike and that what works for one person will automatically work for all. The fact that they are based on this half-truth is reason enough to question their veracity and cast doubt on the wisdom of accepting them.

Why Study Old Wives' Tales?

To the serious student of psychology, devoting time to an analysis of old wives' tales might be a diversion. It might even be an opportunity for ego inflation, much like rummaging through grandmother's attic for gramophones, bustles, and hand-cranked telephones. As each item is brought out, dusted off, and examined, the remarks are likely to be, "Can you imagine wearing *that* today?" and "I just can't believe people had to wind up their record players or telephones." Being able to poke fun at what people of past generations considered the last word in progress is, unquestionably, ego-inflating.

If old wives' tales were indeed innocuous relics of the past and nothing more, they would not deserve much space in this textbook. But, unfortunately, they have not been relegated to the attics of time. They are very much alive today. People cling to them—even educated, intelligent people—with a tenacity that seems completely irrational.

Psychologists are by no means the only scientists who encounter strong resistance in their efforts to dispel unfounded and often harmful traditional beliefs. All scientists face this problem. But it is especially serious for those who work with people. In medicine, for example, the obstetrician meets resistance when he tells his patient to watch her diet to avoid putting on excess weight. "But, Doctor," says the mother-to-be, "I have always heard that you have to eat for two." The pediatrician who recommends a diet of fruit juices for a child with a bad cold is likely to hear, "But shouldn't you feed a cold and starve a fever? Where will Johnny get the strength to shake off his cold if he doesn't eat?"

Old wives' tales, then, do influence people. They often play a particularly harmful role in parental behavior and, through it, in the child's development. It is in childhood, when the individual is almost totally dependent on other people, that his life pattern is laid. If parents and other adults are guided by traditional beliefs, the child will be influenced by the beliefs, often to his disadvantage.

Anything that can stand the test of time for generation after generation must have some value. What value do old wives' tales have? It is almost unanimously agreed that they serve two useful functions: as behavioral guidelines and as spurs to scientific investigation.

← the affect the actions of adults.

AS BEHAVIORAL GUIDELINES

Until the early 1900s, few guidelines for the training of children had been supplied by scientific studies. Parents and teachers had to rely upon traditional beliefs or use their own best judgment.

Under such conditions, old wives' tales had an important and useful function.

They served as guidelines for behavior and gave parents confidence that they were playing their role satisfactorily. "Spare the rod and spoil the child" was—and in some families still is—a guideline for family discipline. It made corporal punishment a parental responsibility. However distasteful the duty might be or whatever it might arouse in the parent, he was at least immunized against social criticism if his child misbehaved. What is more important, he had no doubt that the best punishment for any childish misdemeanor was a slap or a spank. Only that would teach a child what was right and what he must do (6).

Many old wives' tales have gained support from their early endorsement by scientists (19):

> *Toward the end of the last century quite reliable journals and textbooks published reports by reputable reporters of congenital effects consequent to emotional stress. We all remember and smile condescendingly at the grandmother's story of the rat-faced boy whose mother was frightened by the appropriate rodent during her pregnancy. We must not forget that while these beliefs arose in folklore, they were accepted and*

given clinical support by the writings of physicians.

More recently, the stamp of scientific approval has been given to old wives' tales relating to postnatal development. Studies of juvenile delinquency, for example, report an alarming increase of delinquent acts among adolescents from affluent homes where permissive discipline prevails—where the rod is spared (7,11).

Similarly, some studies of the educational and vocational achievements of people of different ordinal position in the family have upheld the traditional belief of the innate superiority of the firstborn. This belief was a justification for the custom of passing titles and family wealth to the firstborn on the ground that he was best able to manage them (1).

When scientists support old wives' tales or disagree among themselves and when social custom accepts the traditional guidelines, parents and teachers can hardly be blamed for clinging to old child training techniques. Nor can they be accused of being rigid if they are skeptical about experimenting with the latest educational theory.

AS SPURS TO SCIENTIFIC INVESTIGATION

(A second value of old wives' tales is that they have motivated scientists to critically reexamine accepted beliefs.) As scientific evidence about human behavior accumulated, it became increasingly apparent that many of our traditional beliefs were not in keeping with findings from scientific research. This served as a spur to further inquiry. Would new evidence contradict or strengthen the old wives' tales? Would further studies of firstborn children show that they are superior? If so, is their superiority innate, or have they simply had greater opportunities? Similarly, do learning and retention depend only on intelligence, or are they affected by teaching and learning techniques and by motivation?

If scientists are alert to the possible harm of old wives' tales and if they increase their efforts to find out if the beliefs are true or false, they can make an important contribution to the field of child development.

Scientific investigations to prove, disprove, or qualify traditional beliefs cannot be carried out overnight. In-depth studies of learning techniques and follow-up studies of retention may require years of research.

While all old wives' tales should be subjected to scientific scrutiny, those which have the greatest influence on the lives of children should be given priority. As Whitehead emphasized, the "doctrines which best repay critical examination are those which for the longest time have remained unquestioned" (27). Certainly, those which apply to children fit in this category.

Psychological Damage of Old Wives' Tales

The psychological damage that acceptance of old wives' tales brings far outweighs their value as easy behavioral guidelines or as motivations to scientific research. This damage takes many forms, but three may be singled out as especially serious.

The first comes from the *inertia* that the halo of infallibility surrounding old wives' tales engenders. If a belief has been accepted as true for many generations, people ask, Who are we to doubt it? Furthermore, most people are anxious to be socially accepted, and following the crowd is perhaps the most obvious way to gain this end. If a person does not conform, he runs the risk of being labeled a "radical" or an outsider. He then feels that he must justify his stand so that he can prove to himself and others that he is right, that he is not just seeking the limelight.

A second source of psychological damage from old wives' tales comes from the *skepticism* that surrounds any evidence contradicting the prevailing beliefs. The layman tends to feel that human beings are too complex to be studied scientifically. A man is not a guinea pig. And the scientist shows his skepticism of new evidence by claiming that more study is needed. The old ideas are a refuge from uncertainty. People would rather cling to the old and tried than take a chance on the new. When skepticism of the new is backed up by the halo of infallibility of the old, people become unwilling to examine new ideas carefully enough to discover whether they are valid or not. For example, mothers who reported food refusal on the part of their children were advised to try permissive feeding. Out of a group of 57 mothers, only 8 were willing to adopt permissive feeding as a customary procedure. A few tried the permissive method but soon rejected it as a "new-fangled idea" and reverted to their former authoritarian practices (5).

The third and most serious psychological damage from old wives' tales comes from the effect they have on *individual behavior* and on the *development of children.* Behavioral guidlines based on traditional beliefs may be quick and easy, but they can also be dangerous. For example, many a person has been influenced by the saying that redheads have fiery tempers. If a person who has red hair believes this, he has little motivation to learn emotional control. He was born with a fiery temper, he says, just as he was born with the genes that caused him to be a redhead. Why try to control it? In time, the habit of flying off the handle becomes so firmly rooted in his behavioral pattern that learning emotional control should he want to do so, will prove extremely difficult.

The psychological damage inflicted on children by parents, teachers, and others guided by traditional beliefs is even more serious, because children become innocent victims. They have little or no choice. For example, the child whose parents or teachers believe that he must learn slowly to guarantee retention is often forced to take more time to learn than he needs or wants. As a result, he becomes bored and builds up resentments—resentments against parents, teachers, certain subjects, even school itself.

Two of the most common causes of underachievement among bright children are boredom and inefficient learning techniques. And there is ample evidence that most school boredom comes from having to spend more time on learning than is needed (12, 23). The underachiever usually develops a generalized habit of working below his capacities. As time goes on, he becomes dissatisfied with his achievements in life because he realizes that he has potentials that have never been tapped. He has been an innocent victim of training based on acceptance of the traditional belief that "the slow learner is the slow forgetter."

SOME PSYCHOLOGICALLY DAMAGING BELIEFS

Not all old wives' tales are psychologically damaging to the person who accepts them or to the children trained by people who use them as guidelines. Therefore, this discussion is not all-inclusive. Instead, it includes only those beliefs most widely accepted and which have been shown by scientific research to have damaging effects on the development of children. No attempt is made to give scientifically determined evidence to show whether the beliefs are true, partly true, or false. This will be done in subsequent chapters where the old wives' tales are discussed together with specific areas of development.

Here, the old wives' tales are categorized according to the areas of development to which they are related and an attempt is made to explain why and how they are psychologically damaging. This is done in the hope that the reader will begin his study of child development with an alertness to the danger of being influenced by traditional beliefs. It is also hoped that the reader will learn to question *all* principles of child development that are not substantiated by scientific studies aimed at exploring *all* conditions that may be responsible, directly or indirectly, for the child's developmental pattern.

Childhood.

The traditional belief that childhood is a time of helplessness has encouraged overprotectiveness by parents and, to some extent, by teachers. While this may make childhood easier for the child, he later pays a heavy penalty for not having learned to be independent, self-confident and responsible. Even when he is still young, he is likely to resent being overprotected, and his resentment may spread to all persons who have authority over him.

Equally as damaging is the traditional belief that a happy childhood guarantees happiness and good adjustment in later life. The child who is shielded from unhappy experiences and permitted to do whatever he wants is likely to grow up with unrealistic ideas about life, expecting everything to turn out just as he wants. Having developed no tolerance for frustration he will find it difficult to cope with provocative situations without becoming angry and resentful. Even worse, he is likely to think of himself as a martyr when his parents or the other adults who shielded him from the unpleasant facts of life are no longer around. Feeling unprepared to face difficulties and frustrations alone, he may also come to resent those who built a protective cocoon around him.

Another belief that is damaging to children is that they can be happy only if they are carefree. Adults who use this as a guideline for training deprive children of essential learning experiences. Assuming responsibilities and working out problems independently can be extremely satisfying to children. A carefree existence may foster long-lasting feelings of personal inadequacy.

Children as People.

The most harmful traditional belief about children as people is that they are miniature adults. While few people today expect children to perform the physical tasks that adults perform, many expect them to behave like adults. No child, however, should be expected to sit quietly for an hour while adults discuss topics that are meaningless to him, no child should be expected to have the social insight that is essential to tact, and no child should be expected to control his anger or fear in an adult way.

When people accept the old wives' tale that children are miniature adults and should behave like adults, they lay the basis for adult-child friction. This friction may kill a child's desire to try to behave in a more mature manner. Constant criticism, scolding, or punishment for "not acting his age"—that is, like an adult—make the child feel inadequate and rebellious.

The traditional belief that the child who is different is inferior encourages parents and teachers to pressure the child to dress, feel and act like everyone else. Should his interests differ from those of his peers, he is encouraged or even forced to change. A child resents having to submerge personal interests and activities and follow patterns set by others. His resentment lowers his motivation to perform well, with the result that he sees himself as inferior—just as the old wives' tale claims.

Since creativity requires a person to break with the old and try something new and original, discouraging individuality stifles creativity. The social group as a whole loses when a person who is capable of contributing something new and different is prevented from doing so for fear of being different. The potentially creative person is himself made unhappy because he is forced into a pattern unsuited to him.

Heredity. Traditional beliefs about the role of heredity in child development are especially harmful. They encourage the feeling that one is fated to develop in a certain pattern. The belief that one is "a chip off the old block" can influence a person's behavior throughout life.

When parents or teachers believe that a child's hereditary endowment is responsible for his personality, his talents, and his behavior, just as it is for his physique and facial characteristics, they are less likely to try to discourage habits that can lead to social and personal problems. A child may come to believe that he inherited his father's stinginess or his mother's bad temper. Then neither he nor his parents will try to replace these behavior patterns with more desirable ones.

An old wives' tale that is widely held today claims that children are born either right- or left-handed. It is believed that any attempt to change left-handedness into right-handedness will cause serious emotional disturbances, the most common of which is stuttering. With this dire warning, is it surprising that few parents will take any action to counteract their child's left-handedness? Many are deterred by the belief that it would be useless for them to try to change a hereditary trait.

On the surface, the psychological damage that results from accepting this old wives' tale might seem to be trivial. This, however, is not correct. Being left-handed in a right-handed society is a handicap and should be avoided if possible. Since being different is often interpreted as being inferior, the psychological hazard is severe, especially during the self-conscious adolescent years. Even more important, left-handedness presents learning problems for the child who is expected to follow instructions and demonstrations designed for the right-handed majority. Learning new skills is never easy, and it is even more difficult for a left-handed child who must follow models or imitate movements designed for those who are right-handed.

The traditional belief that "leaders are born, not made" militates against trying to train children to play leadership roles if they have not shown, almost from their earliest peer group activity, a "natural" leadership ability. As a result, many leaders are lost to society and many children who have potential leadership ability and a motivation to lead, are forced to play the follower role. They may be discontented followers, however, and they often develop feelings of personal inadequacy, believing that others lack confidence in them.

Prenatal Influences. The traditional belief that the mother can "mark" her unborn child by her fears has caused many a mother to feel guilty if her child is born with a birthmark or some other physical feature which she, her husband, or friends attribute, with a stretch of the imagination, to some maternal fear during pregnancy. While a physical defect is a psychological hazard to a child, the hazard is greatly increased if the mother develops an overprotective attitude to compensate for her feeling of guilt.

Closely related to this traditional belief is another which claims that the mother can endow her child with some special ability. The mother-to-be may believe that her child will be born with a special aptitude for music if she devotes her time to listening to music, attending concerts, practicing the piano, or singing. Later, she will try to see that he has every opportunity to cultivate his expected talent, often at great personal sacrifice. If he does not develop into the musical genius she believes she created, she may be bitterly disappointed and even punitive toward him. The child subjected to such treatment is likely to feel guilty and inadequate. He will resent being expected to do something he feels incapable of. It is he, rather than the mother, who pays the bigger price for her acceptance of the old wives' tale.

By far the most damaging of the old wives' tales relating to prenatal influences is the belief that the mother can control the sex of her child. How this can be done is explained by a number of traditional beliefs. For example, if she eats certain foods during pregnancy, the baby will be a boy; if she eats others, it will be a girl; if she wishes hard enough for a boy, that is what she will get.

If the mother is disappointed she may develop a resentment against the child. Recognizing that this is unfair and unsportsmanlike, she is likely to compensate by becoming overindulgent. If the father is disappointed as well and rejects the child, the mother may become even more indulgent and permissive. Again, it is the child who pays. He is spoiled by one parent and resentful of the other—or of both.

The child is also penalized by the kind of home climate engendered by the acceptance of this traditional belief. If the husband believes that his wife could have controlled the sex of their child but did not, he will blame her. If she accepts the blame, she will feel guilty. If she does not, she will feel resentful toward her husband. Under such conditions, the child is unlikely to have a happy home climate or the acceptance and love essential for wholesome personality development.

Birth. Because birth is one of man's greatest mysteries, it is not surprising that many traditional beliefs grew up to explain it. One group of beliefs holds that there are auspicious and inauspicious *times to be born.* Very early in history, men came to believe that being born under certain stars would bring either good or bad fortune throughout life. The season of birth is also sometimes regarded as a determinant of personality. The old rhyme

Monday's child is fair of face,
Tuesday's child is full of grace,
Wednesday's child is full of woe,
Thursday's child has far to go,
Friday's child is loving and giving,
Saturday's child works hard for a living,
But the child that is born on the Sabbath Day
is fair and wise and good and gay.

illustrates the widespread tradition that personality is influenced by day of birth.

The psychological damage of such old wives' tales is that they discourage children and parents from trying to cultivate desirable personality characteristics or correct undesirable ones. Personality patterns that will lead to good or poor personal and social adjustment are assumed to be innate. As a result, a child may develop, by chance rather than by guidance, the characteristics commonly associated with "his stars" or his day of the week. If these happen to be desirable, no psychological damage will be done. But if they are undesirable, the damage can be attributed largely to acceptance of the traditional beliefs.

Another group of traditional beliefs center around the *effects of birth* on the child, both in infancy and as he grows older. One belief of this kind is embodied in an ancient Chinese saying, "Difficult birth, difficult child." Some beliefs about the effects of birth on the child's personality and the infant's adjustment to postnatal life have been supported by scientific evidence. Little attempt has been made, however, to discover whether it is the birth experience per se that effects the child's adjustment and personality or whether it is the attitude of parents, mainly the mother, toward the child because of the difficulty or ease of the birth.

Again, the psychological damage of accepting the traditional belief is that it stifles any motivation the parents might otherwise have to guide the child's development into desirable channels.

Traditional beliefs about *prematurity*—its cause and its effect on the child's development—are another source of psychological damage. For centuries, people have believed that premature birth has an adverse effect on the child both physically and mentally and that it is caused by an imprudent act of the mother. In the absence of scientific knowledge, it is difficult to contradict such a belief. Mothers often blame themselves—and their husbands blame them—for not taking their maternal obligations more seriously and thus preventing what might be lifetime handicaps to their children. They become overprotective, thus depriving their children of opportunities to learn. Parental friction over how to handle premature children creates an unwholesome emotional climate for the children to grow up in.

Throughout the ages, children have paid a heavy price for such an old wives' tale. Among many peoples, it was a common practice to put prematurely born infants to death or to put them in some isolated place with other defectives and allow them to perish. The justification for this practice was that the children would always be a burden to society. Even today, old wives' tales about prematurity have a marked influence on the treatment of prematurely born children, not only during their infancy, but often as long as they remain under the parental roof. They are overprotected and undermotivated by parents who believe that they are not physically or mentally capable of doing what a normal, full-term child can be expected to do.

Two contradictory beliefs have been long and widely held about *firstborn* children. The first maintains that they are the most able of all children. As a result, the firstborn is given greater privileges and advantages and more parental affection than later-born siblings. This favoritism affects every area of the child's development.

The second, and less widely accepted, belief is that the firstborn child will inevitably be spoiled and unmotivated to develop his innate abilities. People often prejudge firstborn children and regard them with suspicion. It is not uncommon, for example, for parents to warn their children not to marry firstborns on the ground that they will be difficult to live with and will never "amount to much."

The Relationship between Physical and Psychological Characteristics. For centuries, people have believed that it is possible to evaluate personality characteristics by observing physical traits. The widespread and popular techniques of physiognomy (Fig. 1–1) and phrenology (Fig. 1–2) are based on this belief. In the former, facial features, such as the size and shape of the nose, forehead, or mouth, are used to evaluate personality traits, while in the latter, the size and shape of the head are used for this purpose.

A person with red hair, for example, is traditionally considered a quick-tempered, impulsive person. The implication is that there is nothing he can do to become more even-tempered and less impulsive. Because quick temper and impulsiveness often lead to accidents, many redheads tend to be accident-prone. If they, their parents, or their teachers accept the old wives' tale, redheads will have little motivation to learn to control their emotions and prevent the occurrence of accidents. They pay the price in two ways: unfavorable social judgments about their emotional maturity and an unneccessary share of accidents which often leave permanent physical scars.

The traditional belief that the personality changes as the body changes has been strengthened by the

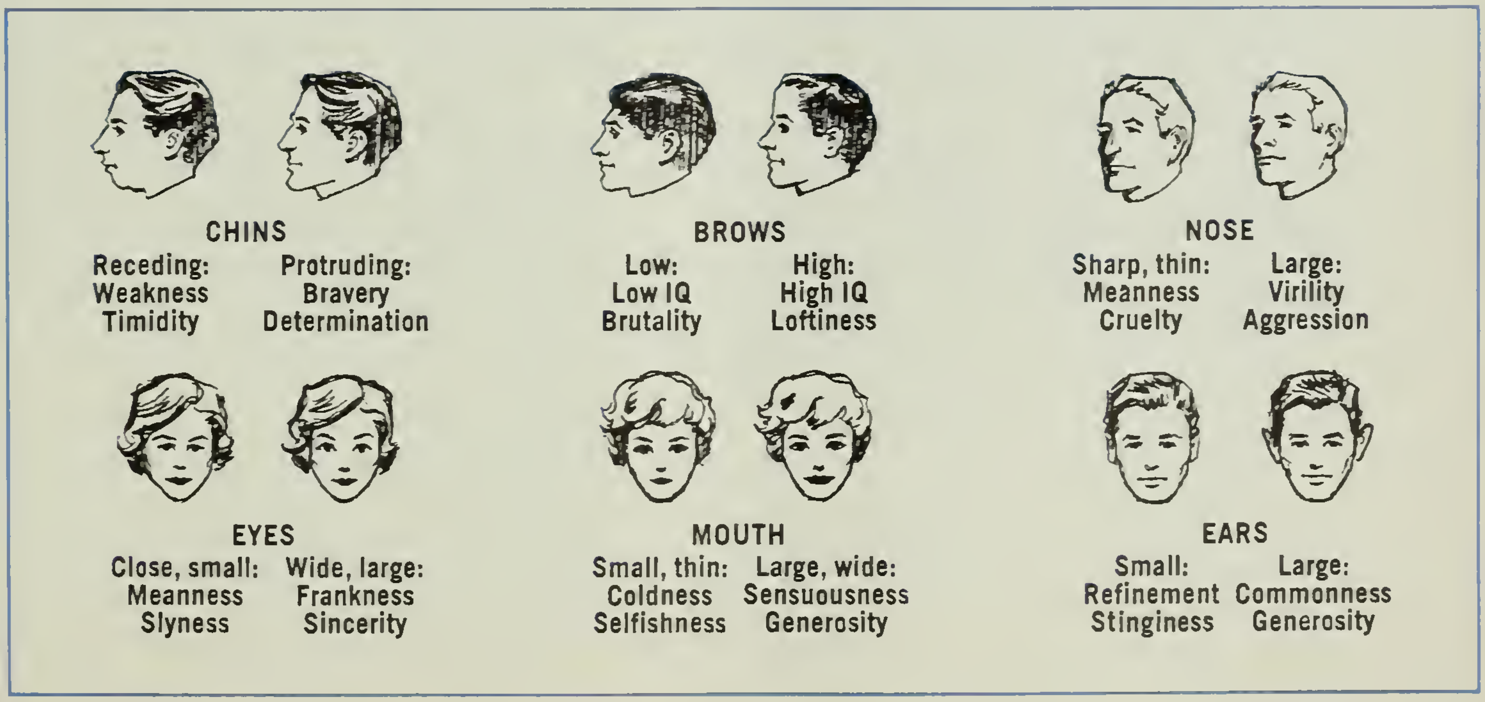

CHINS
Receding: Weakness Timidity
Protruding: Bravery Determination
BROWS
Low: Low IQ Brutality
High: High IQ Loftiness
NOSE
Sharp, thin: Meanness Cruelty
Large: Virility Aggression
EYES
Close, small: Meanness Slyness
Wide, large: Frankness Sincerity
MOUTH
Small, thin: Coldness Selfishness
Large, wide: Sensuousness Generosity
EARS
Small: Refinement Stinginess
Large: Commonness Generosity

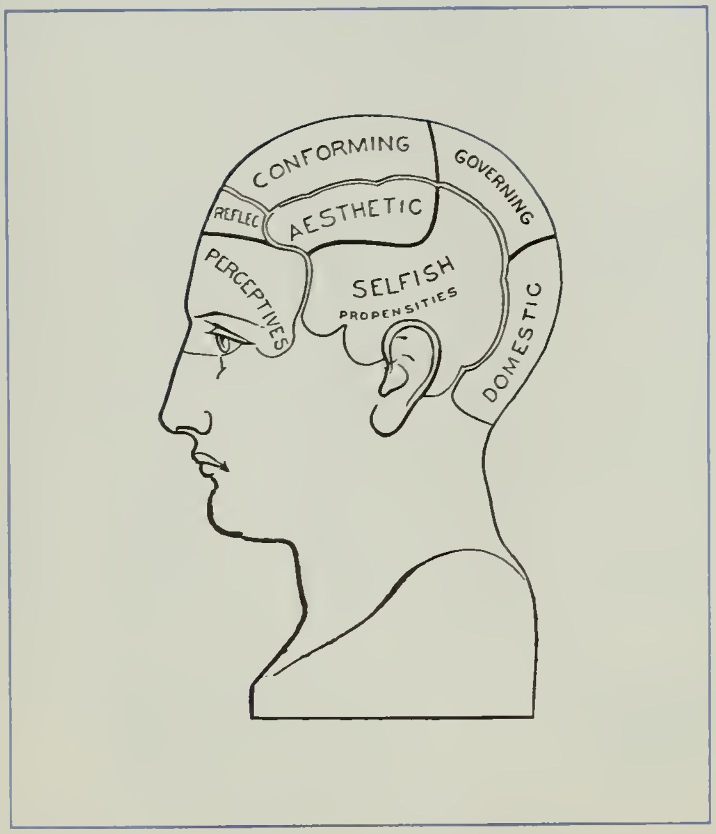
Figure 1–1. Some widely held personality "types" associated with certain physical features. (From the book The human heredity handbook *by Amram Scheinfeld. Copyright © 1965 by Amram Scheinfeld. Redrawn by permission of the publishers, J. B. Lippincott Company.)*

fairy tale of the ugly duckling who turns into a beautiful, graceful swan. Children, it is said, will automatically outgrow all their undesirable personality characteristics when their bodies become more mature.

With no attempt on the part of parents or teachers to develop socially approved behavior in the child, he behaves in a way that leads to disapproval and rejection. This makes him unhappy and resentful toward those who reject him. When he later discovers that he has not outgrown his undesirable traits, it will be much more difficult to change.

Learning. The belief that the slow learner is the slow forgetter, and the quick learner the quick forgetter, is not the only old wives' tale about learning that is psychologically damaging to children. Equally damaging is the belief that a child who does well in one subject will automatically do well in all other subjects, regardless of any special mental abilities a particular subject may require.

Figure 1-2. In phrenology, an attempt is made to determine the major personality characteristics of a person through the measurement of the size and shape of the skull. Note that different areas of the brain were believed to control different functions and patterns of behavior. (Adapted from N. J. Hoffman: The science of mind applied to teaching. *New York: Fowler and Wells Co., 1887.)*



While it is unquestionably true that a bright child who has learned to study efficiently will have an advantage, there is no scientific evidence to support the old belief. A child, for example, may have the mental ability and motivation to do well in subjects that require reasoning, but find subjects that require rote memory so boring that he is unwilling to spend the time or effort needed to master them.

Expecting a child to do equally well in all mental tasks leads parents and teachers to criticize and punish the child when he fails to come up to their expectations. This, in turn, leads the child to resent them and to develop a dislike for the tasks involved. This dislike may be generalized to other school subjects; he begins to work below his capacity and becomes known as an underachiever.

Child Training. While the old wives' tale about sparing the rod is the best known and most widely accepted traditional belief relating to child training, others are just as damaging. Of these, the most serious is the one claiming that approval itself will satisfy a child and thus weaken his motivation to perform.

Tradition holds that criticism and disapproval, like corporal punishment, will spur the child to greater effort. Therefore, praise should be withheld and criticism and disapproval used freely and frequently.

The psychological damage of accepting this old wives' tale is that the child comes to think of himself as an inferior and inadequate person who can do nothing well. This idea is often the basis of an inferiority complex. In addition, criticism and disapproval put so much emphasis on what the child does wrong that he fails to realize that some things he does are right. He develops a negative attitude toward all his achievements. Furthermore, since criticism is ego-deflating, the child builds up resentments against those who criticize. This eventually leads to low motivation and, hence, low achievement.

Closely related to this old wives' tale is the one that warns against showing children too much affection on the ground that, like praise, it will encourage children to rest on their laurels and work below capacity. Too much affection, it is said, will encourage children to take advantage of the person in authority, to regard him as a soft and easy mark. When this occurs, the child will try to be a law unto himself, rebelling against all rules and regulations.

The psychological damage from accepting this old wives' tale as a guideline for child training is even more serious than that which comes from the belief that praise will spoil the child. A child who *believes* that he has been deprived of parental love feels emotionally starved. This not only weakens his motivation to do what he is capable of, but leads him to believe that the people who are most important to him—his parents and teachers—dislike or reject him. Because many parents, especially fathers, feel that showing affection to boys will make them into "sissies," boys are more likely than girls to be the innocent victims of this old wives' tale.

Intelligence. The cliché "Beautiful but dumb" expresses the traditional concept of the relationship of intelligence and physical appearance. An attractive person is expected to be dumb, and an unattractive one bright. Traditionally the highly creative person is expected to be nonconforming in dress, weak in physique, and deviant in moral, social, and emotional behavior. It is assumed that he will be an unsocial person if not antisocial. As Eisenman has commented, "Throughout history, deviant behaviors, including creativity, have been denigrated" (8).

If the person accepts these traditional beliefs and tries to live up to them, he may find himself playing a role that is not to his liking. A bright, attractive girl may bitterly resent the implication that she lacks normal intelligence or the suspicion that she has cheated if she does good academic work. As a child and as an adult, she will resent being told not to bother her "pretty head" about problems, but to let someone else cope with them for her.

Tradition claims that children who are dull will grow brighter as they get older, just as children with undesirable personality traits will automatically replace them with desirable ones. While this does not happen, the expectation that it will is responsible for considerable psychological damage. Parents and teachers often accuse children of not trying or of not taking advantage of their opportunities. The children then become resentful, begin to wonder if the accusations are indeed correct, and finally develop feelings of guilt.

Sex Differences. For the most part traditional beliefs about sex differences claim or imply that the differences are innate and, consequently, inevitable. Because the two sexes are physically different and because the differences become increasingly pronounced after puberty, it is assumed that psychological and behavioral differences are automatic accompaniments of physical changes.

According to tradition, men are less emotional than women. The functional periodicity of women is the reason most often given for this sex difference. While the age-old tradition of masculine superiority in intelligence has not been upheld by results of intelligence testing, the cultural stereotype of the male as the "reasoning animal" and of the female as the "unreasoning animal who pokes the fire from the top," as James described her, still persists (14). Members of the female sex, tradition holds, are meek and dependent, while members of the male sex are autonomous and adventuresome.

By the time children enter school, they have learned that people regard sex differences as extremely important. They have also learned that "masculine traits" are commonly regarded as "superior." Gradually, their own observations of individual instances of inferiority merge into a general concept of inferiority which is closely associated with "feminine characteristics." When this happens, members of the female sex develop inferiority complexes which color their attitudes and patterns of behavior. If they accept the cultural tradition, it stifles their motivation to excel. If they reject the tradition, even though they realize that it is widely held by members of the social group, it makes them resentful, rebellious, and unhappy.

Acceptance of the cultural tradition by members of the male sex fosters the development of superiority complexes. They may become authoritarian and dictatorial toward others, they may tend to rest on their laurels, and they sometimes have such good opinions of themselves that they expect to be treated like princes. Even if they have personal doubts about their superiority, they are willing to accept the traditional belief about masculine superiority because it is ego-gratifying.

Both kinds of complex are psychologically damaging, though in different ways. The person with a superiority complex may be personally satisfied or even happy because he thinks of himself as superior, but he discovers that social attitudes toward him are far from favorable. The person with an inferiority complex is neither happy nor socially approved.

How True Are Old Wives' Tales?

If, at this point, the reader were given a true-false test and asked to mark those traditional beliefs which are false and those which are true, the chances are that he would mark most of them false. If, on the other hand, the reader were asked to produce evidence to prove that the beliefs are false, the chances are that he could not do so, at least in a majority of the cases.

No attempt is made in this chapter to present evidence in support of or against the beliefs. The sole purpose of bringing them together here is to focus attention on how many old wives' tales there are and how pervadingly they affect the behavior of parents, teachers, and other adults.

If all people responsible for the care and guidance of children had the opportunity to study science in high school or college, most of them would abandon the harmful old beliefs in their youth. Such, however, is not the case. Away from the high school or college campus, old wives' tales persist; the percentage of the population that clings to them is unquestionably larger than the percentage that rejects them. Thus, to understand why many children behave as they do, one must realize that their training has been greatly influenced by parents and other relatives who used old wives' tales as behavioral guidelines.

Readers who believe that most old wives' tales are false should also know what evidence there is to justify their belief. It seemed logical to present that evidence in chapters related to the subject matter areas with which the old wives' tales are identified. This arrangement will enable the reader to see the evidence in a broader context than this introductory chapter would allow. Evidence about the effects of birth on the child's development, for example, is presented in the discussion of the newborn infant in Chapter 5. Evidence regarding the "outgrowing" of undesirable personality traits is included in the discussion of persistence and change in personality in Chapter 18.

Equally as important as knowing what evidence there is to prove or disprove old wives' tales is knowing why the reasons commonly given to prove or disprove them may be false. For example, the assumption is that sparing the rod is the way to spoil the child. Studies of the effects of excessively permissive child training and inconsistent training reveal that they too can prevent children from learning to behave according to social expectations. Using the rod often "spoils" the child in the sense that it encourages him to develop socially undesirable characteristics, such as lying or projecting the blame and the punishment on others. These matters are discussed in detail in the evaluation of discipline in Chapter 15.

Similarly, the traditional belief about the superiority of the firstborn child of the family is based on the assumption that his hereditary endowment is superior. While there is ample evidence that firstborn children are often high achievers, there is also evidence that their superiority is environmental in origin, not hereditary. This evidence is presented in the chapters covering speech, academic achievement, and other aspects of development.

It is hoped that the reader will approach the material in the remaining chapters with the question, What evidence is there to substantiate or refute what I have heard or what others believe so strongly? This approach will help reinforce the statement that old wives' tales are damaging to children. It will also emphasize the importance of trying to eliminate these beliefs before they are passed down to future generations.

Highlights of Chapter 1

1. Old wives' tales are traditional beliefs based on what has been found to "work" for the person's physical or psychological welfare.

2. Because old wives' tales are based on the assumption that *all* people of a given age are alike, there is justification for questioning their veracity and doubting their usefulness as behavioral guidelines.

3. All scientists, at some time or other, encounter resistance to their efforts to dispel unfounded and often harmful traditional beliefs.

4. Old wives' tales play two important roles: First, they act as behavioral guidelines when other guidelines are unavailable, and second, they act as spurs to scientific investigation. Their value in these roles is far outweighed by the psychological damage they do to the child.

5. The three most serious forms of psychological damage from old wives' tales are inertia resulting from the halo of infallibility surrounding old wives' tales; skepticism about any evidence contradicting an old wives' tale; and the harmful effects on the child's development resulting from parental or teacher acceptance of an old wives' tale.

6. The old wives' tales that have been found to be most damaging to the child's development are those relating to the meaning of childhood, children as

people, the role of heredity in child development, prenatal influences, the time of birth and the conditions associated with it, the relationship between physical and psychological characteristics, learning, child training methods, intelligence, and sex differences.

Bibliography

1. Altus, W. D.: Birth order and scholastic aptitude, *J. consult. Psychol.*, 1965, **29**, 202–205.
2. Anastasi, A.: *Psychological testing*, 3d ed. New York: Macmillan, 1968.
3. Bolin, B. J.: An investigation of the relationship between birth-duration and childhood anxieties, *J. ment. Sci.*, 1959, **105**, 1045–1052.
4. Bossard, J. H. S., and E. S. Boll: *The sociology of child development*, 4th ed. New York: Harper & Row, 1966.
5. Brim, O. G.: The acceptance of new behavior in child rearing. *Hum. Relat.*, 1954, **7**, 473–491.
6. Caldwell, B. M., and J. B. Richmond: The impact of theories of child development. *Children*, 1962, **9**, 73–78.
7. Dinitz, S., F. R. Scarpitti, and W. C. Reckless: Delinquency vulnerability: A cross group and longitudinal analysis. *Amer. sociol. Rev.*, 1962, **27**, 515–517.
8. Eisenman, R.: Creativity and mental illness: A prevalent stereotype. *Percept. mot. Skills*, 1969, **29**, 34.
9. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. *Genet. Psychol. Monogr.*, 1968, **77**, 169–299.
10. Gardner, R. C., and D. M. Taylor: Ethnic stereotypes: Meaningfulness in ethnic group labels. *Canad. J. Behav. Sci.*, 1969, **1**, 182–192.
11. Glueck, E. T.: A more discriminative instrument for the identification of potential delinquents at school age. *J. crim. Law Criminol. police Sci.*, 1966, **57**, 27–30.
12. Hummel, R. H., and N. Sprinthall: Underachievement related to interests, attitudes and values. *Personnel Guid. J.*, 1965, **44**, 388–395.
13. Jahoda, G.: *The psychology of superstition*. Baltimore: Penguin, 1969.
14. James, W.: *The principles of psychology*. New York: Holt, 1890.
15. Karlins, M., T. L. Coffman, and G. Walters: On the facting of social stereotypes: Studies in three generations of college students. *J. Pers. soc. Psychol.*, 1969, **13**, 1–16.
16. Lambert, W. E., H. Frankel, and G. R. Tucker: Judging personality through speech: A French Canadian sample. *J. Commun.*, 1966, **16**, 305–321.
17. Loewenthal, K.: How are "first impressions" formed? *Psychol. Rep.*, 1967, **21**, 834–836.
18. *New York Times* Report: Modern medicine seeking remedies of witch doctors. *The New York Times*, May 20, 1970.
19. Pasamanick, B., and H. Knobloch: The contribution of some organic factors to school retardation in Negro children. *J. Negro Educ.*, 1958, **27**, 4–9.
20. Pratt, K. J.: Motivation and learning in medieval writings. *Amer. Psychologist*, 1962, **17**, 496–500.
21. Rosenthal, T. L., and B. J. Siegel: Magic and witchcraft: An interpretation from dissonance theory. *Southwest J. Anthrop.*, 1959, **15**, 143–167.
22. Sanford, N.: Will psychologists study human problems? *Amer. Psychologist*, 1965, **20**, 192–202.
23. Thorndike, R. L.: *The concepts of over- and underachievement*. New York: Teachers College, 1963.
24. Titley, R. W.: Imaginations about the disabled. *Soc. Sci. & Med.*, 1969, **3**, 29–38.
25. Watson, G.: Some personality differences in children related to strict or permissive parental discipline. *J. Psychol.*, 1957, **44**, 227–249.
26. Watson, J. B.: *Behaviorism*. New York: People's Institute, 1925.
27. Whitehead, A. N.: Quoted in B. Pasamanick and H. Knobloch: The contribution of some organic factors to school retardation in Negro children. *J. Negro Educ.*, 1958, **27**, 4–9.
28. Wilkinson, C. B.: The destructiveness of myths. *Amer. J. Psychiat.*, 1970, **126**, 1087–1092.

CARLETON SARVER—FORD FOUNDATION

CHAPTER TWO Scientific Studies of Child Development

DESPITE THE PSYCHOLOGICAL DAMAGE of old wives' tales, many are as widely held today as they were in the past. Why is this so? The best general answer is that there is not enough scientific evidence available to prove that they are not true. On the whole, scientists simply have not been motivated in this direction. Studies of the effects of old wives' tales on child development are rare, even though there have always been children to study.

The lack of motivation to make such studies can be explained in two ways. *First,* children were regarded as miniature adults. Since adults are easier to study, scientists concentrated on them and assumed that what was learned could then be applied to an understanding of children. *Second,* traditional beliefs provided ready-made guidelines for the training of children, and it was taken for granted that they were adequate for use both in the home and in the school.

Early Interest in Studying Children

Lack of widespread motivation to study children does not mean that they were entirely neglected. Rather, it means that the vast majority of early studies came not from an interest in children themselves or in their development but primarily from an interest in the best means of educating them to be useful citizens. One of the first persons to study children as individuals was Johann Amos Comenius, the famous Slavic educational reformer of the seventeenth century. Comenius strongly felt that children should be studied not as embryonic adults but in their essential child nature so as to understand their capacities and know how to deal with them.

Following the pioneer work of Comenius, two definite trends appeared in the study of children: (1) philosophical treatises on education in which children were studied only indirectly, and (2) direct daily observations of children in which they were studied at first hand.

Among the educational reformers who indirectly contributed valuable information about children and their capacities were Locke, of England; Rousseau, of France; Pestalozzi, of Switzerland; and Herbart and Froebal, of Germany.

Direct observations proved to be far more fruitful than philosophical treatises, however, because they focused attention on the child himself. Educational and pediatric literature of the sixteenth and seventeenth centuries refers to such present-day problems as breast-feeding, feeding the poor eater, and emotional care of the child during illness (77). The first scientific record of the development of a young child, published in 1774, was based on the observational notes Pestalozzi made of his 3½-year-old son. Several years later, Tiedemann, of Germany, kept biographical records of the development of his children during the early years of their lives. The best-known and most thorough of the early American studies was Millicent Shinn's *Biography of a Baby,* based on her observations of her niece from birth through the first year of life. This appeared in 1900 and was modeled along the lines of the German baby biographies (88).

Interest in scientific studies of children was given great impetus by the work of G. Stanley Hall, of Clark University. Beginning with his study of children's concepts, reported in 1891 in his *Contents of Children's Minds on Entering School,* Hall emphasized that children are not miniature adults (36). Hall's students adopted this point of view, and soon many psychologists and educators became interested in studying the child himself, without reference to education. Because of the interest Hall stimulated, he is often referred to as the "father of the child study movement." McCullers has commented: "The results of any careful reexamination of Hall's ideas would appear to have at least some implications for almost every major developmental theory in psychology today" (66). Since Hall's original work, thousands of studies of almost every phase of child development have made their appearance.

Few of the early studies of children employed scientific methodology. For this reason, they contributed little to our knowledge of how children develop or how they change from one age level to another. As Dennis said in 1955, "The cautious child psychologist will be the first to indicate that, as yet, his field possesses only a modest amount of scientific data" (28).

Motivations to Study Children

The early studies of children, like the ones being made today, were inspired by a number of motives. *First,* scientists were motivated by some practical problem relating to child behavior or child care. The very earliest motivation was a desire to improve educational practices. Later, preschool children were studied in the hope of throwing light on problems related to child training. Still later, the newborn infant was stud-old wives tails.

ied for the purpose of discovering which behavioral traits were hereditary and which must be taught.

Second, studies were motivated by a desire to refute or substantiate prevailing theories. The theory of the constancy of the intelligence quotient (IQ), for example, has motivated long-term studies of the development of intelligence (13, 74).

Third, scientists became curious about traditional beliefs and were motivated to study the areas of behavior related to them in the hope of proving or disproving their veracity. Are quick learners quick forgetters, for example, and, if so, why?

Fourth, scientists were motivated by the new evidence revealed by scientific studies. What was responsible for the patterns of behavior that were found to be typical of children at different ages? Under what conditions could these behavior patterns be expected to manifest themselves? For example, why are temper tantrums more frequent among preschool children, and why do they become less frequent and less intense as children grow older?

The first areas selected for scientific investigation were those considered most important for evolutionary adaptation—upright locomotion, opposed thumb-grasping, speech, etc. When it was shown that development in each of these areas occurred over a wide range of ages, scientists were motivated to study individual differences and the causes of these differences.

Obstacles to Studying Children

The obstacles to scientific study are ubiquitous and sometimes almost insurmountable. Of the many obstacles scientists have encountered in their attempts to study children, the most common and the most difficult to cope with are: securing children for scientific research, finding suitable and scientifically accurate methods for studying children, controlling the accuracy of material obtained outside the laboratory setting, and establishing rapport with children.

SECURING CHILDREN FOR SCIENTIFIC RESEARCH

A major difficulty for scientists wishing to study children is finding subjects for their research. Getting large and unselected groups of children for scientific research has long been a troublesome problem. This obstacle is not as overwhelming as it used to be, however. Today most babies are born in hospitals and are more likely to be made available to the scientist than in the past. Also, the feeling that babies are "too delicate" to be studied is not as widespread as formerly.

Nursery schools, kindergartens, and health and mental health clinics give the psychologist of today an excellent opportunity to study children of the preschool age. Parents bring their children to these centers for training, for free medical care, and for guidance in overcoming behavior problems. In return they permit the children to be studied and tested at regular intervals.

There are still serious obstacles to studying school-age children. Although many school people today willingly cooperate with the scientist, this has not solved the problem completely. School children themselves are often reluctant to cooperate. They feel that they are being treated like guinea pigs or that testing is a waste of their time. Even more serious is the limitation placed on what can be studied. School authorities often will not permit research on a "touchy" subject, such as sex, religion, or parent-child and sibling relationships.

METHODS OF STUDYING CHILDREN

A second obstacle in the way of scientific studies of children is finding methods that not only will be suitable for use with children of different ages but will also be scientifically accurate and yield valid results. The problem of methodology in the study of children has always been a thorny one. Many approaches have been abandoned because they proved to be too complicated or because they lacked reliability. For example, baby biographies and questionnaires are seldom used today because they are too difficult to control for accuracy.

Actually, *no one method or measuring technique is suitable for all age levels or for all forms of behavior.* Entirely different methods must be used for studying children who cannot verbalize their thoughts and for those whose speech is well developed. Different measuring techniques must be used for children who cannot read and write and for those who can. Sociometric techniques are valuable for example, in studies of social development, but they are inadequate and inappropriate for studies of language or motor development.

As a result of this obstacle, accumulation of information about child development has been slow as well as spotty. The difficulty has been met, in part, by borrowing methods used in related fields of research—mainly medicine, sociology, and experimental psychology. Since many of these methods were devised for use with adults or adolescents of high school or college age, however, they must be modified before they can be applied to the study of children.

Laboratory versus Field Studies. In the early days of scientific psychological research, most studies were made in the laboratory, where conditions that affect the pattern of a subject's behavior can be carefully controlled. It soon became apparent, however, that the laboratory setting itself made children apprehensive. Was the behavior they displayed in the laboratory situation a true picture of their everyday behavior or only a picture of how they behaved in a laboratory?

To eliminate this obstacle to accurate research, some scientists began making studies in the child's natural habitat of the home, school, and playground. These studies—called "field studies"—showed that results obtained in the field did not always agree with those from the lab. Consequently, more and more field studies have been made—studies of anger, discipline, and conversation in the home, of social behavior in school and in the neighborhood, of reactions to school, (as school phobias), and a host of other behavior patterns. These will be discussed in detail in subsequent chapters.

An experiment by Fawl will serve to show why many psychologists have become skeptical about the results of laboratory studies of children. Fawl compared the results of a laboratory study of frustration made by Barker, Dembo, and Lewin, where the psychologist acted to produce an artificial state of frustration in the child, with the results of a field study in which the psychologist observed and reported children's reactions to frustrating situations in real-life settings. The results obtained from the two studies were quite different (10, 30). Unquestionably, the field-study approach yielded a more accurate appraisal of children's characteristic reactions to frustrating situations.

This does not mean that laboratory studies should be abandoned. Nor does it mean that field studies are universally believed to be superior. Field studies can seldom match laboratory studies in controlling conditions that might affect the subject's reactions. In commenting on field-study methods, Barker (9) has brought out some of their shortcomings as well as some of their advantages:

> *These methods have not infrequently been judged and found wanting. It is commonly said of them that almost anything they can do, experiments can do better. Their advantage is said to lie in their relative simplicity, which makes them useful as rough and ready methods for reconnoitering new problems, and especially, for identifying variables to be included in crucial experiments.*

Cross-sectional versus Longitudinal Approach. Information from questionnaires, observations, retrospective reports, etc., can be combined with data from other studies to give a composite picture of child development. This is known as the *normative cross-sectional approach* because the norms for different areas of development are obtained by studying many groups over a short period. When the groups are made up of representative samplings of the population, environmental influences are, to a large extent, ruled out, and the normative pattern of development can then be observed (7).

The *longitudinal approach* to studying child development consists of reexamining the same children at intervals throughout the childhood and adolescent years. Dennis has pointed out that "child psychology has been almost alone in undertaking longitudinal studies." He further emphasizes that one of the reasons for the gaps in our knowledge of children is that "longitudinal studies are inherently slow" (28).

Longitudinal studies may be trait-oriented or life-outcome-oriented. The *trait-oriented* study is used to discover stability or change in a single trait or cluster of traits. For example, by studying the same person over a period of years, one can discover whether the aggressiveness or cowardliness he showed as a preschooler persists through adolescence and into adulthood, whether the trait becomes stronger or weaker as time goes on, or whether it disappears and gives way to other traits. Similarly, does a cluster of traits that make up an authoritarian or alienation syndrome persist, or do they change or disappear?

Life-outcome-oriented longitudinal studies are designed to find out what childhood traits are likely to preindicate an "achieving adult or a psychiatric casualty." By studying a child through the important formative years of his life, one may be able to discover not only what kind of adult he will be but also whether certain persistent traits or clusters of traits are more likely to lead to successful than to unsuccessful adult adjustments (73).

Material for longitudinal studies may be obtained by a prospective approach or a retrospective approach. In the former, the study begins with the child and follows him into adolescence or adulthood, while in the latter, the study begins with the adolescent or adult and traces back into childhood to identify the antecedents of the present behavior. In both, the material is obtained from clinical, biographical, and observational sources (23, 73).

Box 2-1 presents an evaluation of cross-sectional and longitudinal studies of children.

Longitudinal studies have transformed our knowledge of both childhood and adolescence by bringing out facts impossible to see in a cross-sectional approach, where individual variations are masked by "averages." Some of the most important longitudinal studies to date have been those of intellectual growth by Bayley, Owens, and Terman and Oden (13, 75, 99); studies of the long-term effects of the age of sexual maturing on social behavior and personality by Ames, Jones, and Mussen (5, 44, 71); studies of the persistence of personality characteristics from childhood into adulthood and old age by Bühler, Kagan and Moss, Smith, and others (23, 46, 92); and studies of the long-term effects of child training methods on personality and behavior by Kagan, Macfarlane et al., Schaefer and Bayley, and Watson (45, 59, 86, 104).

Human versus Animal Subjects. A further methodological obstacle in the study of children is that methods which have proved to be highly reliable and harmless in studies of animals cannot be used on human beings because of the fear of possible psychological damage. From a scientific as well as from a practical angle, it is important to know how much of a child's development will occur of its own accord and how much will depend on the child's experiences. In studies of the hereditary endowment of animals, the animals can be deprived of learning opportunities. They can be isolated from other members of their species or kept in cages so that they have no opportunities to imitate acts characteristically found in their species. Then, should the behavior appear, it could logically be concluded that it was a hereditary trait.

The *method of isolation* has been used with human subjects but has always been quickly abandoned.

Box 2-1

EVALUATION OF CROSS-SECTIONAL AND LONGITUDINAL APPROACHES

Cross-Sectional Approach	*Longitudinal Approach*
Advantages	*Advantages*
▪ Time-saving ▪ Gives a picture of typical characteristics at different ages ▪ Relatively inexpensive to carry out ▪ Can be carried out by one experimenter	▪ Permits analysis of development of each child ▪ Permits study of growth increments ▪ Gives an opportunity to analyze relationships between maturational and experiential processes ▪ Gives an opportunity to study effects of cultural and environmental changes on behavior and personality
Disadvantages	*Disadvantages*
▪ Gives only an approximate representation of the developmental process ▪ Does not take into consideration variations within age groups ▪ Does not take into consideration cultural or environmental changes over time	▪ Generally requires follow-up study by new experimenter, owing to length of time covered ▪ Expensive to carry out ▪ Data are extensive and cumbersome to handle ▪ Difficult to maintain original sample of subjects ▪ Must often fill in gaps by retrospective reports

Not only is there the practical difficulty of gaining parental consent for using babies for such studies, but there are also strong objections, raised by parents and others, that isolation is unfair to a child and might damage him so severely that he would never again be "normal" (7, 28).

A second method of discovering how much nature does for the child and how much he must do for himself is the *co-twin control method.* On the assumption that identical twins are alike both physically and psychologically, clinicians give one twin, Twin *T* (or "trained twin") practice in learning different functions, while Twin *C* (or "control twin") is given no training. After a certain length of time, the results of training for Twin *T* are compared with the achievements of Twin *C*. Here again there is the practical difficulty of getting an adequate number of subjects whose parents will allow them to participate in such an experiment. One twin might be psychologically damaged by being deprived of learning opportunities, and the other by being made to feel superior (7, 33).

Genetic studies of large groups have, for the most part, proved to be much more practical for widespread use than the isolation and co-twin control methods. The fundamental principle of the genetic study is that when environmental factors are controlled by having many different racial, socioeconomic, religious, intellectual, and physical factors represented in the group, environmental influences are ruled out; any similarity in the developmental patterns of children in the group may then be regarded as "nature's work" (7, 28).

Effects of Methodological Obstacles. Methodological obstacles have forced scientists to postpone the studying of many important areas of child behavior. They are, in part, responsible for the gaps in our present knowledge of how and why children develop as they do. The need to overcome these obstacles has been highlighted by Anderson (7):

> *In child psychology scientific problems are being attacked in a variety of ways by workers who are becoming more and more concerned with methodology. Child psychology, which at first accepted uncritically almost any observations or results obtained from the study of children, has become more mature. It now critically examines its methods and results and deliberately goes about designing experiments. In many areas the study of the child has moved from the exploratory phase to the comprehensive investigation carried on over a long period. . . . From today's studies, however inadequate, come the highly developed techniques of tomorrow. . . . The scientist of today has a great advantage over the one of yesterday, not in his interest or ability but in the better tools that have been forged in the intervening period. . . . To understand growth and development, which appear ever more complex as we learn more about them, we need not one but many competent investigators, not one but many and varied investigations.*

ACCURACY OF DATA

The third major obstacle scientists have encountered in studies of child development is the difficulty of ensuring the accuracy of the material obtained outside the laboratory setting. Regardless of what method is used, this obstacle hampers research, leaves gaps in our knowledge, and often makes experimenters doubt the validity of their findings.

Observations of children are subject to inaccuracy for two reasons. *First,* one person can hardly observe everything a child does or says and make accurate records of what goes on. To increase the accuracy of observation, Gesell introduced the use of the moving-picture camera in his studies at Yale University in 1926 (33). By photographing the child in action and studying the pictures in slow motion, the observer can see all parts of the body in movement. The film can be rerun if any movement is missed in one observation. An advantage of this method is that it eliminates the temptation on the part of the observer to interpret what he is observing. In a rerun, he sees the child's activity in a more objective manner than he might while he is actually watching the child (76).

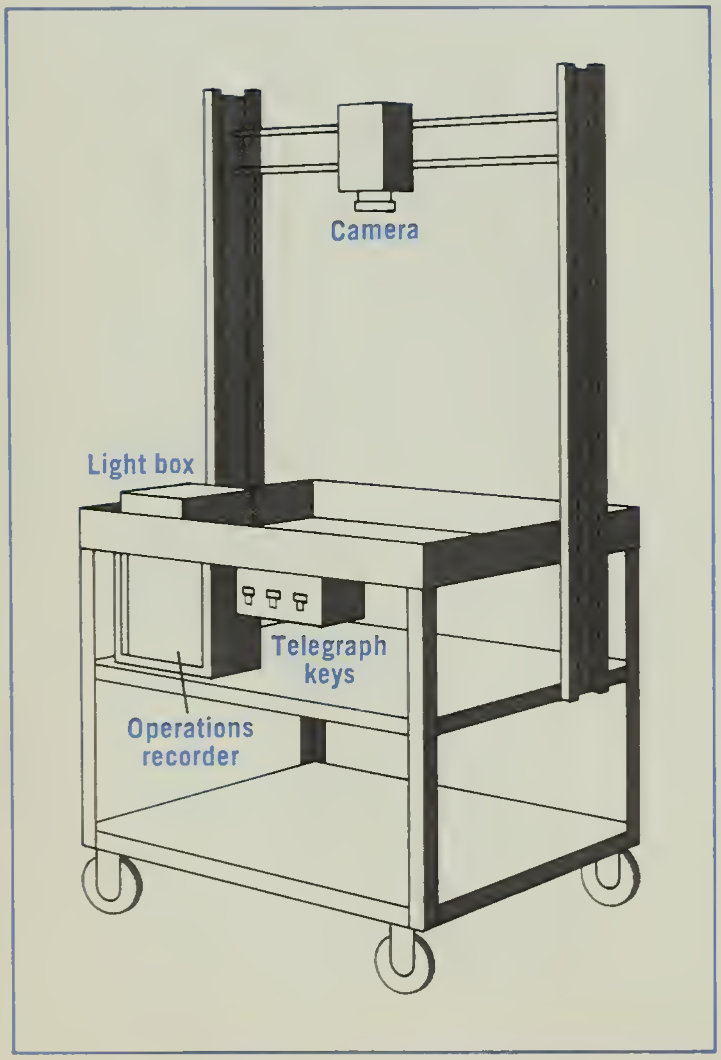
Accuracy of observation is especially difficult in field studies. Whenever possible, cameras, television, and other devices are used to get a permanent record of the child's behavior so that it can be studied again and again (1, 50). Figure 2-1 shows one piece of apparatus commonly used to study movements of newborn infants.

The problem of accuracy of observation is particularly hard to overcome in the area of speech research. To understand speech development, one must know what prespeech forms of language the baby used. Few studies have been made in this area because of the difficulty of analyzing the sound by ear and because auditory memory is unreliable. As Lynip (57) pointed out:

> *It is totally impractical to try to express in adult sounds an utterance of an infant prior to his speech maturation. Infant utterances are not like any of the well-defined values of adult language. They are produced differently and they are shaped differently, their relationships with adult sounds are at first only fortuitous. Infant sounds cannot be described except in terms of themselves.*

To overcome this observational handicap, Lynip used a magnetic recorder and a sound spectrograph, which provides a pictorial analysis of the sound samplings secured by the recorder. From these records, accurate in both auditory and visual forms, it is possible to determine how prespeech sounds change over time until they become recognizable as speech (57).

Figure 2-1. Observation cart for photographing newborn infants. (Adapted from W. Kessen, L. S. Hendry, and A. M. Leutzendorff, Measurement of movement in the human newborn: A new technique, Child Development, *1961, 32, 95-105. Used by permission.)*



Accurate observation of speech is even more problematic in field-study settings than in laboratories. Tape recorders have been used successfully in studies of what children talk about when alone, away from the watchful eyes and listening ears of parents, teachers, or experimenters, and what they say to family members at the dinner table or to the dentist when having their teeth cleaned (29, 57).

The *second* reason why observations of children are subject to inaccuracy is that most children do not behave in the same way when they are alone or with other children and when they know they are being observed by adults. Gesell, many years ago, suggested a way of eliminating this methodological obstacle. He contended that, by using a one-way-vision screen, scientists could observe a child without his realizing it (33). Children beyond the 3-year age level find ways to explore behind the screen, however, and soon discover that it is a device for watching them. Then its usefulness is limited.

Recently, Allen and Evans reported that by setting up a "dentist's office" in the laboratory and by using different electronic devices to record the speech and behavior of children who came for dental check-ups, they could make accurate records of children's speech and behavior without their being aware of it. Even though an arrangement of this kind may greatly increase the accuracy of observations, it is much too complicated and expensive to be widely used (1).

Scientists sometimes find it necessary to use data from reports made by teachers and parents, persons who have an excellent opportunity to observe children in naturalistic settings. To increase the accuracy of these data, they give the parents and teachers training in what to observe and what to report. Such training *does not guarantee* effective control. The observer's attitudes toward the behavior of children—whether it will be considered "normal" or "problem"—are influenced by his own personality, his professional skills, his experience, and his rapport with the children.

Even when the scientist lays out a systematic topical framework for the reporting of observations, the observer's giving or withholding of material will be influenced by his own ideas on the significance of certain material to the problem being studied. Also, the perceptiveness of the observer is an important factor in determining what he will report (16, 76, 105).

A simple incident, such as a child's pout when a sibling gets more attention than he, may not be perceived as a sign of jealousy by the observer; consequently, he will not report it. In the study of problem behavior in the home, parental expectations play an important role in determining what parents will observe and report. Mothers, as a rule, have higher expectations of good behavior in their daughters than in their sons, and thus tend to be more critical of their daughters' behavior. Fathers expect their sons to be more aggressive than their daughters. Therefore, parents will put different interpretations on similar behavior by boys and girls (37, 67).

Biased attitudes affecting the accuracy of observations also exist among observers in the school. What constitutes problem behavior, for example, depends upon the teacher's frame of reference. To a teacher, anything that disrupts the efficiency of teaching or the quiet needed for study—giggling, passing notes, or talking to another pupil—is likely to belong in this category. To a clinician, whose frame of reference relates to the effects different forms of behavior have on a child's adjustments now and as he grows older, such behavior is of minor importance. Withdrawal and other patterns of behavior which lead to maladjustment are labeled "problem behavior" by the clinician. Under such conditions, the observations of teachers and clinicians of the same children in the same situation differ markedly (15, 61, 96).

To avoid the effect of biased attitudes on observations, clinicians sometimes use retrospections of earlier experiences. Seeing a situation in the perspective of time, the observer is less likely to distort his observations. This is especially applicable in parent-child relationships, where annoyances of the moment can readily color the parents' reports (82, 105, 111).

While bias may be avoided, other factors that impair the accuracy of the report, such as forgetting, attitude change, the desire to say the "right thing" or to justify an act, and even deliberate distortion to show the child or the parent in a favorable light, may make a retrospection no more reliable than on-the-spot observations (16, 27, 58, 68, 87, 112). As Yarrow et al. have said: "Generally the subject matter is not neutral for the respondent: he has investments of various kinds in the experiences about which he is asked to report" (113). Figure 2-2 shows some common inaccuracies in parental reports.

Another source of inaccuracy in parental reports comes from the affective content of the data (68, 105, 112). If a child is ill, for example, the mother's fear or anxiety may color her report. The more serious the illness, the greater its effect. As time passes, she may remember it as more severe than it actually was. Whiting and Whiting correctly said, "If the study of children is to become legitimately scientific, the validity of reporting is clearly of prime importance (107).

RAPPORT WITH CHILDREN

A fourth obstacle to the scientific study of children is the difficulty of establishing rapport with one's subjects. If accurate data are to be obtained, children must speak and act naturally. They must not show off or put up a front to impress the observer, and they must not be intimidated by him or by the strangeness of the setting.

The importance of good rapport was discovered in the early days of intelligence testing. Testers were advised to inform the children that they wanted to "play games" with them, and to take time to establish a friendly relationship before beginning the test. Only then could they hope to get an accurate picture of the child's intellectual abilities (6, 98).

What is true of the testing situation is even more true of the experimental situation, especially if it is that of the laboratory. Children must be made to feel at home in the new environment and with the experimenter if they are to react in their characteristic, normal manner. This takes time, but it increases the accuracy of the results.

In training laboratories in developmental psychology, future researchers learn techniques for achieving rapport with children. They are advised, for example, to call themselves Miss, Mrs., or Mr. rather than Dr. So-and-So, a label children associate with persons who examine their bodies or "stick them with needles." They are advised to make the children feel at ease by showing them the lab and demonstrating some of the apparatus. Above all, they are advised to answer all questions or even to suggest questions that the children might be afraid to ask themselves (52, 72).

Not until the experimenter is sure that rapport has been established should he begin the experiment. This may take more than one session. It may require letting the child bring one of his friends to the laboratory until he feels at home there and is willing to return alone. Or it may mean abandoning the use of the child as a subject. All this increases the cost of research in terms of time, effort, and money but it is more than justified in terms of accuracy of results and confidence in their accuracy.

Age Differences. It is never possible to predict whether a given experimenter will be able to establish satisfactory rapport with children of the age group he intends to study. Years of experimental research with children, both in laboratory and field settings, have shown, however, different "types" of people are likely to be more successful with different age groups. For *babies,* a young female who likes babies and is accustomed to handling them can generally establish better rapport with them than can male experimenters. This is because a young woman reminds the babies of their mothers. Babies who are accustomed to babysitters usually respond to experimenters more positively than those who are accustomed only to their mothers. If the babysitters have been middle-aged or elderly women, such as grandmothers, rather than high school students, babies are less likely to be afraid of an experimenter.

How quickly a *preschool child* will establish rapport with an experimenter will depend partly on how accustomed he is to being with strangers and partly on what kind of person he is used to being with. The preschooler who has gone to nursery school, kindergarten, or Sunday school, for example, is more at home with strangers than the child whose life has been centered in the home. Since most preschool children see few men outside the immediate family, male experimenters have more difficulty establishing rapport with them than female experimenters.

Even though *school-age children* have had many experiences with strangers, they may find it hard to establish rapport with experimenters. This is not so much because they are afraid, but rather because they cherish their privacy and resent being questioned by adults. These same feelings motivate them to spend as much time as possible with their peers. With this age group, male experimenters are as successful in establishing rapport as female experimenters—but only with male subjects. Girls still prefer female experimenters. Also, this is the only age group that seems to prefer young experimenters, especially if they are attractive and are able to communicate with the children at their own level. The older the experimenter, the more he symbolizes power and authority and, hence, the more distant he seems.

Essentials of Good Rapport. Good child-experimenter rapport depends not only on the child's attitude toward the experimenter but also on the experimenter's attitude toward the child as a person and toward children as a group. Other things equal, both men and women experimenters are more successful if they have had experience with children as surrogate parents during their own childhood or as camp counselors, teachers, or parents. Even with such experience, if they regard children as "subjects" rather than "people," the establishment of rapport will be slow and difficult. Children quickly sense a cold impersonal attitude and react to it with fear or resentment.

Child Psychology versus Child Development

Know

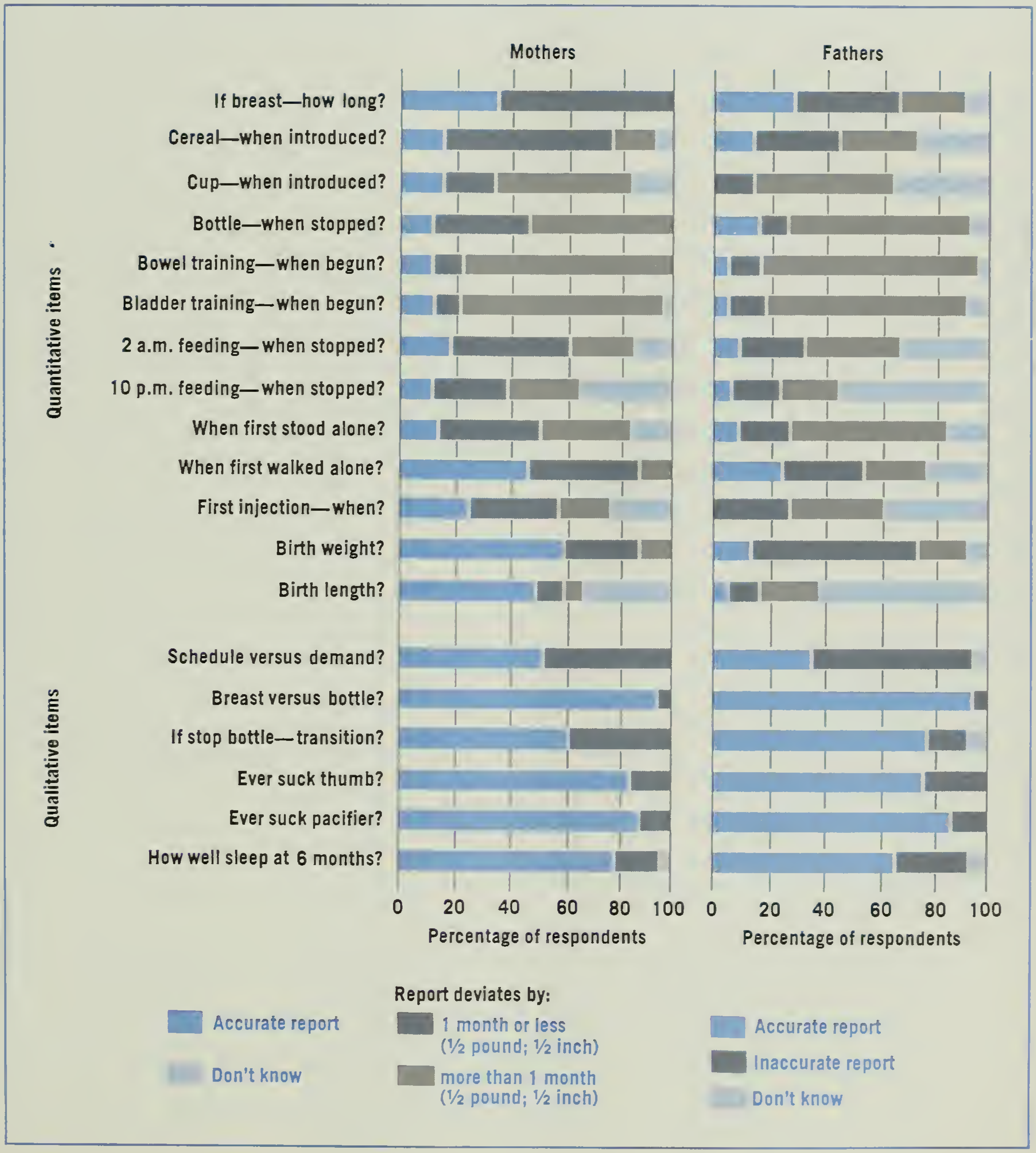
The early scientific studies of children, concentrated on specific areas of child behavior, such as speech, emotions, or play interests and activities. The name given to this new branch of psychological research was "child psychology"—a label which suggested that interest was centered on the psychological phenomena of the preschool and school-age child.

In time, it became apparent that studying different areas of child behavior at different age levels would not be enough. It would not add to our understanding of how behavioral characteristics change as children grow older and of what causes them to change. So interest began to shift. The name "child psychology" was changed to "child development" to emphasize that the focus was now on the *pattern* of the child development rather than certain aspects of development.

Another important change accompanied this shift of interest. Instead of concentrating on preschool and school-age children, the area of study was extended in both directions, down to the newborn infant and up to the pubescent child. Since medical research reports that the prenatal environment has lasting effects on the child, the area of study now extends back to the moment of conception (31).

While a "child" is correctly defined as a young person "between infancy and youth," the field of child development is that branch of psychological research which studies the individual from conception until he becomes a "youth," or a person who is sexually mature, even though he is not regarded as mature enough to have the rights, privileges, and responsibilities associated with adulthood. Today, the major emphasis in child development is on discovering the characteristic changes in appearance, be-

Figure 2-2. Inaccuracies in parental reports about their children. (Adapted from L. C. Robbins. The accuracy of parental recall of aspects of child development and child rearing practices, J. abnorm. soc. Psychol., *1963, 66. 261–270. Used by permission.)*



havior, interests, and goals as the child passes from one developmental period to another. In addition, child development attempts to find out when these changes normally occur, what is responsible for them, and whether they are individual or universal.

The shift of interest meant that far more research was needed. Child development is a much broader field than child psychology. And, because scientific studies of the child are of relatively recent origin, it is not surprising that our knowledge of the psychological phenomena characteristic of the childhood years is far from complete.

In some instances, our picture of certain aspects of development and of age changes over a relatively short span is fairly well-rounded. In other instances, the picture is only beginning to take shape. With further research, the gaps will be filled in. Until then, it will be necessary to say, "So far as our present knowledge goes all evidence points to this fact, but as further evidence is accumulated, our present knowledge may be radically changed."

Because scientists are unwilling to fill in the gaps until they are sure their information is adequate and valid, there is both scientific and popular confidence in the data already available about child development. This confidence will persist if scientists continue to base their statements and advice on valid data only.

Highlights of Chapter 2

1. The lack of motivation to study children scientifically was due to two factors. First, children were regarded as miniature adults, and it was considered unnecessary to study them directly. Second, guidelines for training children already existed in the old wives' tales.

2. Early interest in studying children came from a desire to discover the best methods of educating them to be useful citizens.

3. Pioneer scientific studies of children were biographies based on observations.

4. G. Stanley Hall, regarded as the "father of the child study movement," was the first scientist to study the psychological development of groups of children.

5. In the beginning, the motivation to study children scientifically came from practical problems related to child behavior or child care, a desire to refute or substantiate prevailing theories, a desire to prove or disprove traditional beliefs about children, and a desire to know what is responsible for behavior problems typically found in children at different ages.

6. Scientific studies of children are complicated by four serious obstacles.

7. The first is the practical problem of securing large and unselected groups of children for scientific research.

8. The second is the need to develop a scientifically accurate method suitable for studying children at different ages.

9. The third obstacle is the difficulty of controlling the accuracy of material outside the laboratory setting.

10. The fourth obstacle to studying children is the difficulty of establishing experimenter-child rapport.

11. Scientific studies of children at first concentrated on different psychological phenomena. Today the emphasis is on the developmental pattern. Because of this shift in emphasis the name of the field has been changed from child psychology to child development.

Bibliography

1. Allen, B. P., and R. I. Evans: Video tape recording in social psychological research: An illustrative study in podontia. *Psychol. Rep.*, 1968, **23**, 1115–1119.
2. Ames, L. B.: Longitudinal survey of child Rorschach responses: Younger subjects aged 2 to 10 years. *Genet. Psychol. Monogr.*, 1960, **61**, 229–289.
3. Ames, L. B.: Longitudinal survey of child Rorschach responses: Older subjects aged 10 to 16 years. *Genet. Psychol. Monogr.*, 1960, **62**, 185–229.
4. Ames, L. B., and F. L. Ilg: The developmental point of view with special reference to the principle of reciprocal neuromotor interweaving. *J. genet. Psychol.*, 1964, **105**, 195–209.
5. Ames, R.: Physical maturing among boys as related to adult social behavior. *Calif. J. educ. Res.*, 1957, **8**, 69–75.
6. Anastasi, A.: *Psychological testing*, 3d ed. New York: Macmillan, 1968.
7. Anderson, J. E.: Child development research: The next 25 years. *Child Develpm.*, 1960, **31**, 191–199.
8. Baldwin, A. L.: The study of child behavior and development. In P. H. Mussen (ed.): *Handbook of research*

methods in child development. New York: Wiley. 1960. pp. 1–15.

9. Barker, R. G.: Exploration in ecological psychology. *Amer. Psychologist,* 1965. **20,** 1–14.

10. Barker, R. G., T. Dembo, and K. Lewin: Frustration and aggression: A study of young children. *Univ. Iowa Stud. Child Welf.,* 1941, **18,** no. 1.

11. Baugh. J. R., G. R. Pascal, and T. B. Cottrell: Relationship of reported memories of early experiences with parents on interview behavior. *J. consult. clin. Psychol.,* 1970. **35,** 23–29.

12. Bayley, N.: The life span as a frame of reference in psychological research. *Vita. Humana,* 1963. **6,** 125–139.

13. Bayley, N.: Research in child development: A longitudinal perspective. *Merrill-Palmer Quart.,* 1965, **11,** 183–208.

14. Bayley, N., and M. H. Oden: The maintenance of intellectual ability in gifted adults. *J. Geront.,* 1955, **10,** 91–107.

15. Beilin, H.: Teachers' and clinicians' attitudes toward the behavior problems of children. *Child Develpm.,* 1959. **30,** 9–25.

16. Bell, R. Q.: Retrospective attitude studies of parent-child relations. *Child Develpm.,* 1958. **29,** 323–338.

17. Berko, J., and R. Brown: Psycholinguistic research methods. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 517–557.

18. Bijou, S. W.: Ages, stages, and the naturalization of human development. *Amer. Psychologist,* 1968. **23,** 419–427.

19. Bijou, S. W., and D. M. Baer: The laboratory-experimental study of child behavior. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley. 1960. pp. 140–197.

20. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row. 1966.

21. Bronfenbrenner, U., and H. U. Ricciuti: The appraisal of personality characteristics in children. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 770–817.

22. Bronson, W. C.: Central orientations: A study of behavior organization from childhood to adolescence. *Child Develpm.,* 1966, **37,** 125–155.

23. Bühler, C.: The course of human life as a psychological problem. *Hum. Develpm.,* 1968. **11,** 184–200.

24. Burlingham, D. T.: Precursors of some psychoanalytic ideas about children in the sixteenth and seventeenth centuries. In R. S. Eissler (ed.): *The psychoanalytic study of the child.* New York: International Universities Press, 1951, pp. 244–254.

25. Burton, R. V.: Validity of retrospective reports assessed by the multitrait-multimethod analysis. *Develpm. Psychol. Monogr.,* 1970. **3,** No. 2, part 2.

26. Clifford, E.: Discipline in the home: A controlled observational study of parental practices. *J. genet. Psychol.,* 1959, **95,** 45–82.

27. Cotler, S., and D. J. Shoemaker: The accuracy of mothers' reports. *J. genet. Psychol.,* 1969. **114,** 97–107.

28. Dennis, W.: Scientific models for the investigation of child development. In P. H. Hoch and J. Zubin (eds.): *Psychopathology of childhood.* New York: Grune & Stratton, 1955, pp. 15–24.

29. Dreger, R. M.: Spontaneous conversation and story-telling of children in a naturalistic setting. *J. Psychol.,* 1955, **40,** 163–180.

30. Fawl, C. L.: Disturbances experienced by children in their natural habitat. In R. G. Barker (ed.): *The stream of behavior,* New York: Appleton-Century-Crofts, 1963, pp. 99–126.

31. Frank, L. K.: The beginnings of child development and family life education in the twentieth century. *Merrill-Palmer Quart.,* 1962, **8,** 207–227.

32. Freedman, M. B.: Changes in six decades of some attitudes and values held by educated women. *J. soc. Issues,* 1961, **17,** 19–28.

33. Gesell, A.: How science studies the child. *Scient. Monthly,* 1932, **34,** 265–267.

34. Gibson, E. J., and V. Olum: Experimental methods of studying perception in children. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 311–373.

35. Goodenough, F. L.: *Anger in young children,* Minneapolis: University of Minnesota Press, 1931.

36. Hall, G. S.: The contents of children's minds on entering school. *Ped. Sem.,* 1891, **1,** 139–173.

37. Havighurst, R. J.: Social class and basic personality structure. *Sociol. soc. Res.,* 1952, **36,** 355–363.

38. Henry, W. E.: Projective techniques. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley. 1960, pp. 603–644.

39. Hess, E. H.: Etiology and developmental psychology. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1–38.

40. Hoffman, L. W., and R. Lippitt: The measurement of family life variables. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 945–1013.

41. Inhelder, B., and B. Matalon: The study of problem solving and thinking. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 421–455.

42. Irwin, O. C.: Language and communication. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley. 1960, pp. 487–516.

43. James, W.: *The principles of psychology.* New York: Holt. 1890.

44. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36,** 899–911.

45. Kagan, J.: American longitudinal research on psychological development. *Child Develpm.,* 1964, **35,** 1–32.

46. Kagan, J., and H. A. Moss: *Birth to maturity: A study in psychological development.* New York: Wiley, 1962.

47. Kelly, E. L.: Consistency of the adult personality. *Amer. Psychologist,* 1955, **10,** 659–681.

48. Kennedy, W. A.: School phobia: Rapid treatment of fifty cases. *J. abnorm. Psychol.,* 1965, **70,** 285–289.

49. Kessen, W.: Research design in the study of developmental problems. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 16–70.

50. Kessen, W., L. S. Hendry and A. M.

Leutzendorf: Measurement of movement in the human newborn: A new technique. *Child Develpm.*, 1961, **32**, 95–105.

51. Lambert, W. W.: Interpersonal behavior. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 854–917.

52. Landreth, C.: Child laboratories on university campuses. *Child Develpm.*, 1964, **35**, 989–992.

53. LaVine, R. A.: Cross-cultural study in child psychology. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 559–612.

54. Lindzey, G., D. T. Lykken, and R. H. Winston: Infantile trauma: Genetic factors and adult temperament. *J. abnorm. soc. Psychol.*, 1960, **61**, 7–14.

55. Lipsitt, L. P.: Learning processes of human newborns. *Merrill-Palmer Quart.*, 1966, **12**, 45–71.

56. Loewenthal, K.: How are "first impressions" formed? *Psychol. Rep.*, 1967, **21**, 834–836.

57. Lynip, A. W.: The use of magnetic devices in the collection and analysis of preverbal utterances of an infant. *Genet. Psychol. Monogr.*, 1951, **44**, 221–262.

58. Maccoby, E. E., and N. Maccoby: The interview: A tool for social science. In G. Lindzey (ed.): *Handbook of social psychology.* Reading, Mass.: Addison-Wesley, 1954, pp. 449–487.

59. Macfarlane, J., L. Allen, and M. P. Honzik: *A developmental study of the behavior problems of normal children between twenty-one months and fourteen years.* Berkeley: University of California Press, 1954.

60. Macy, I. C., and H. J. Kelley: Chemical and physiologic growth. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 252–283.

61. Marshall, H. H.: Behavior problems of normal children: A comparison between the lay literature and developmental research. *Child Develpm.,* 1964, **35**, 469–478.

62. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.,* 1961, **75**, no. 5.

63. McCall, R. B.: The use of multivariate procedures in developmental psychology. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1366–1377.

64. McClusy, H. Y., and G. Jensen: The psychology of adults. *Rev. educ. Res.*, 1959, **29**, 246–255.

65. McCord, J., and W. McCord: Cultural stereotypes and the validity of interviews for research in child development. *Child Develpm.*, 1961, **32**, 171–185.

66. McCullers, J. C.: G. Stanley Hall's conception of mental development and some indications of its influence on developmental psychology. *Amer. Psychologist,* 1969, **24**, 1109–1114.

67. Mead, M.: *Male and female.* New York: Dell, 1968.

68. Mednick, S. A., and J. B. P. Shaffer: Mothers' retrospective reports in child-rearing research. *Amer. J. Orthopsychiat.*, 1963, **33**, 457–461.

69. Meredith, H. V.: Methods of studying physical growth. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley: 1960, pp. 201–252.

70. Miller, D. R.: Motivation and affect. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 688–769.

71. Mussen, P. H. (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960.

72. Nadelman, L.: Training laboratories in developmental psychology. *Psychol. Rep.*, 1968, **23**, 923–931.

73. Neugarten, B. L.: Continuities and discontinuities of psychological issues into adult life. *Hum. Develpm.*, 1969, **12**, 121–130.

74. Oden, M. H.: The fulfillment of promise: 40-year follow-up of the Terman gifted group. *Genet. Psychol. Monogr.*, 1968, **77**, 3–93.

75. Owens, W. A.: Age and mental abilities. A second adult follow-up. *J. educ. Psychol.*, 1966, **57**, 311–325.

76. Pease, D., and G. R. Hawkes: Observation of parent-child interaction. *Amer. J. Orthopsychiat.*, 1960, **30**, 453–459.

77. Pratt, K. J.: Motivation and learning in medieval writings. *Amer. Psychologist,* 1962, **17**, 496–500.

78. Riesen, A. H.: Reactor functions. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 284–307.

79. Riesman, D.: Styles of response to social changes. *J. soc. Issues,* 1961, **17**, 78–92.

80. Rivers, T. M.: Birth defects to be research target. *J. Home Econ.*, 1960, **52**, 27–28.

81. Robbins, L. C.: The accuracy of parental recall of aspects of child development and child rearing practices. *J. abnorm. soc. Psychol.*, 1963, **66**, 261–270.

82. Rosenthal, I.: Reliability of retrospective reports of adolescents. *J. consult. Psychol.*, 1963, **27**, 189–198.

83. Rosenthal, T. L., R. W. Henderson, A. Hobson, and M. Hart: Social strata and perception of magical and folk-medical child-care practices. *J. soc. Psychol.*, 1969, **77**, 3–13.

84. Sanford, N.: Will psychologists study human problems? *Amer. Psychologist*, 1965, **20**, 192–202.

85. Schachter, F. F., A. Cooper, and R. Gordet: A method for assessing personality development for follow-up evaluations of the preschool child. *Monogr. Soc. Res. Child Develpm.,* 1968, **33**, no. 3.

86. Schaefer, E. S., and N. Bayley: Maternal behavior, child behavior and their intercorrelations from infancy through adolescence. *Monogr. Soc. Res. Child Develpm.*, 1963, **28**, no. 3.

87. Schaefer, E. S., and R. Q. Bell: Development of a parental attitude research instrument. *Child Develpm.*, 1958, **29**, 339–361.

88. Shinn, M. W.: *The biography of a baby,* New York: Macmillan, 1900.

89. Siegel, A. E.: Aggressive behavior of young children in the absence of an adult. *Child Develpm.*, 1957, **28**, 371–378.

90. Siegel, A. E.: Current issues in research on early development *Hum. Develpm.*, 1969, **12**, 86–92.

91. Skeels, H. M.: Adult status of children with contrasting early experiences: A follow-up study. *Monogr. Soc. Res. Child Develpm.*, 1966, **31**, no. 3.

92. Smith, M. E.: A comparison of certain personality traits as rated in the same individuals in childhood and fifty years later. *Child Develpm.*, 1952, **23**, 159–180.

93. Sontag, L. W., and J. Kagan: The emergence of intellectual achievement motives. *Amer. J. Orthopsychiat.,* 1963, **33,** 532–535.

94. Spiker, C. C.: Research methods in children's learning. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 374–420.

95. Stevenson, H. W., and N. G. Stevenson: A method for simultaneous observation and analysis of children's behavior. *J. genet. Psychol.,* 1961, **99,** 253–260.

96. Stouffer, G. A. W., and J. Owens: Behavior problems identified by today's teachers and compared with those reported by E. K. Wickman. *J. educ. Res.,* 1955, **48,** 321–331.

97. Sutton-Smith, B., R. G. Rosenberg, and E. F. Morgan: Historical changes in the freedom with which children express themselves on personality inventories. *J. genet. Psychol.,* 1961, **99,** 309–315.

98. Terman, L. M., and M. A. Merrill: *Stanford-Binet Intelligence Scale: Manual for the third revision form L-M.* Boston: Houghton Mifflin, 1962.

99. Terman, L. M., and M. H. Oden: *Genetic studies of genius. V. The gifted group at mid-life.* Stanford, Calif.: Stanford, 1959.

100. Thomas, H.: Psychological assessment instruments for use with human infants. *Merrill-Palmer Quart.,* 1970, **16,** 179–223.

101. Thompson, G. G.: Children's groups. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 821–853.

102. Titley, R. W.: Imaginations about the disabled. *Soc. Sci. & Med.,* 1969, **3,** 29–38.

103. Tizard, J.: New trends in developmental psychology. *Brit. J. educ. Psychol.,* 1970, **40,** 1–7.

104. Watson, J. B.: *Behaviorism.* New York: People's Institute, 1925.

105. Wenar, C.: The reliability of developmental histories. *Psychosom. Med.,* 1963, **25,** 505–509.

106. Wenar, C., and S. C. Wenar: The short term prospective model, the illusion of time, and the tabula rosa child. *Child Develpm.,* 1963, **34,** 697–708.

107. Whiting, J. W. M., and B. B. Whiting: Contributions of anthropology to the methods of studying child rearing. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 918–944.

108. Wright, H. F.: Observational child study. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 71–139.

109. Yarrow, L. J.: Interviewing children. In P. H. Mussen (ed.): *Handbood of research methods in child development.* New York: Wiley, 1960, pp. 561–602.

110. Yarrow, M. R.: The measurement of children's attitudes and values. In P. H. Mussen (ed.): *Handbook of research methods in child development.* New York: Wiley, 1960, pp. 645–687.

111. Yarrow, M. R.: Problems of methods in parent-child research. *Child Develpm.,* 1963, **34,** 215–226.

112. Yarrow, M. R., J. D. Campbell, and R. V. Burton: Reliability of maternal retrospection: A preliminary report. *Family Process,* 1964, **3,** 207–218.

113. Yarrow, M. R., J. D. Campbell, and R. V. Burton: Recollections of childhood: A study of the retrospective method. *Monogr. Soc. Res. Child Develpm.,* 1970, **35,** no. 5.

BURK UZZLE—MAGNUM

CHAPTER THREE Principles of Development

THE FUNDAMENTAL PURPOSE of studying child development is to discover the normal pattern of the normal child and to determine, when deviations occur in this pattern, what has been responsible for them. The study of child development is, however, hampered to a certain extent by gaps in our knowledge of different developmental processes. In some instances, only the beginnings of the processes have been carefully explored; in others, only the terminal states. In very few is the picture complete.

Even more serious than the gaps themselves is the tendency of some writers to fill them in with material drawn from studies of adults or adolescents. There have, for example, been many studies of adolescent gangs but very few of children's gangs. Consequently, some people assume that since some adolescent gangs are delinquent, children's gangs are also delinquent. Studies of children's gangs show that this assumption is false; children's gangs do not conform to the adolescent pattern but to a pattern of their own (39, 47).

As research progresses, these gaps will be filled in. The developmental psychologist has already, to some extent, drawn on the research findings of related fields of study, mainly medicine, education, sociology, anthropology, and gerontology. From anthropological studies, for example, we have important evidence of the effects of child-training methods on personality development.

What Is Development?

Many people use the terms "growth" and "development" interchangeably. In reality they are different, though they are inseparable; neither takes place alone. Growth refers to *quantitative* changes—increases in size and structure. Not only does the child become larger physically, but the size and structure of the internal organs and the brain increase. As a result of the growth of the brain, the child has a greater capacity for learning, for remembering, and for reasoning. He grows mentally as well as physically.

Development, by contrast, refers to *qualitative* changes. It may be defined as a progressive series of orderly, coherent changes. "Progressive" signifies that the changes are directional, that they lead forward rather than backward. "Orderly" and "coherent" suggest that there is a definite relationship between a given stage and the stages which precede or follow it. As Anderson has emphasized, "Nor is development merely a matter of adding inches to stature, or ability to ability; instead, it is a complex process of integrating many structures and functions" (7). Because of this integration, each change is dependent upon what preceded it, and it, in turn, affects what will come after.

Neugarten (96) has explained how qualitative changes in development affect the person as he grows older:

> *People change, whether for good or for bad, as a result of the accumulation of experience. As events are registered in the organism, individuals invariably abstract from the traces of those experiences and they create more encompassing as well as more refined categories for the interpretation of new events. The mental filing system not only grows larger, but it is reorganized over time, with infinitely more cross references. . . . Adults are not only much more complex than children, but they are more different one from another, and increasingly different as they move from youth to extreme old age.*

TYPES OF CHANGE

The human being is never static. From the moment he is conceived to the time of death, he is undergoing changes. At every age, some of these changes are just beginning, some are in their peak, and some are in the process of decline. Changes may be divided into four major categories, as shown in Box 3–1.

While some of the changes that occur in development are antagonistic, others are interrelated. This may be seen in the changes in size and proportions. Increase in body size is accompanied by modifications of the composition of the body. Gain in weight in babyhood, for example, comes not from increase in fat tissue alone but also from increase in neural, bone, glandular, and muscle tissue. In childhood, the gain comes principally from bone and muscle tissue. In adulthood, the gain is from an accumulation of fat tissue.

Interrelated changes in size and proportions are apparent also in the mental characteristics of the child. The young child's emotions, for example, lack gradations; violent temper outbursts may have no relation to the intensity of the frustrating situation. With increased intelligence and experience, the child is able to control his anger responses to meet the approved standards of the social group.

Development may follow different patterns, some of which are normal or "healthy" and some abnormal and "unhealthy." The person who makes the best adjustments to life develops in a healthy pattern. What is a healthy pattern of development? Chilman (37) has written:

> *People who are developing in a "healthy" manner move in cycles, but generally upward, as on a spiral staircase. . . . Through each cycle of development, new skills are learned, new psychological strengths are developed (if all goes well). Motivations change—again if all goes well—with increasing age, so that "age-appropriate" behavior becomes not only acceptable but desirable.*

ATTITUDES TOWARD CHANGE

Typically, the adult dreads change, whether it is failing eyesight that requires him to wear glasses or the accumulation of middle-age fat. These changes proclaim to the world that he is growing old. By contrast, the child tends to welcome each change because it brings him closer to the privileges and freedom of adulthood.

Davis and Havighurst (41) have described the child's desire to grow up as follows:

> *Age is the ladder by which the young child hopes to climb to his Arcadia. . . . Very early he discovers that other children, whether in his family or his nursery school, measure his prestige by his age. On the ladder of age, each step will lead him to higher privileges at home and at school, to sweeter triumphs over more and more "small fry," and to more dazzling signs of prestige. . . . Everything good, he is told by his parents, comes with age. More than anything else, therefore, the child yearns to become bigger and older. . . . To the young child . . . age seems to be the key which unlocks all the forbidden doors of life. It is the magic gift of adults, which brings power and social acceptance. It lifts the barriers to the most inviting and mysterious roads, opening toward freedom and adventure. . . . As long as he is young, he must be the underdog, he must yield, he must obey. It is not easy for a child to be always inferior, simply because he is inferior in size.*

That children's attitudes toward development are, for the most part, favorable is also apparent from studies of happiness. Retrospective reports, in which adults looked back and tried to recall how they felt about their life at different ages, have revealed that their outstanding memories were related to their first new experiences, each of which was a symbol of progress toward maturity (14, 83).

Whether the individual child's attitudes toward change are generally favorable or unfavorable depends upon many factors. One of the most important determinants is how a change affects his *behavior.* If the child is able to be more independent of adult help and if the change gives him added strength and speed so that he can take part in the play activities he associates with older children, he will welcome it. *Social attitudes* toward change affect the child, just as they do the adult. Most parents encourage their children to "grow up" as soon as possible. When the child lives up to the parents' expectations, he is praised; when he falls below their expectations, he is reproved for not "acting his age." Social attitudes are influenced to some extent by how they affect the child's *appearance.* As the chubby baby becomes the spindly preadolescent, and as the teeth fall out and the face takes on a comical, if not homely, look, the

Box 3-1

TYPES OF CHANGE

Changes in Size

These include *physical* changes in height, weight, circumference, and internal organs, and *mental* changes in memory, reasoning, perception, and creative imagination.

Changes in Proportions

As may be seen in Figure 3-3, the child is not a miniature adult either physically or mentally.

Disappearance of Old Features

When certain physical features, such as the thymus gland and baby hair and teeth, lose their usefulness, they gradually atrophy, as do some psychological and behavioral traits—babyish locomotion and speech and fantastic extensions of the imagination.

Acquisition of New Features

Some new physical and mental features develop from maturation and some develop from learning. New physical features include second teeth and primary and secondary sex characteristics; new mental features include the sex urge, moral standards, and religious beliefs.

child may be less appealing to adults. If so, they are likely to show it in their treatment of him.

Cultural attitudes are more favorable toward babies than toward older children. Just as everyone loves a baby, so almost everyone dreads the pubescent stage, when the child becomes glum, moody, surly, secretive, and difficult to live or work with. Even his peers may find him a "pest," and old friendships often break up at this stage. Under such conditions, it is not likely that a child will have a favorable attitude toward many of the changes that puberty brings.

Rate of Development

Development, whether physical or mental, is not a uniform process. It is most rapid during the 9 months before birth when the individual grows from a microscopically small germ cell to an infant of approximately 7 pounds in weight and 20 inches in length. It has been estimated that his weight during that time increases eleven million times.

Physical development continues at a rapid rate throughout babyhood to the age of 3 years. The increase is not limited to size but also includes body proportions. To realize how rapidly the changes occur, all one has to do is to compare a 3-year-old with a newborn infant. During this period, one can almost see the baby grow from week to week.

From 3 to 6, the child continues to grow rapidly, though not so fast as before. From about the age of 6 until just before adolescence, his growth slows down somewhat. He develops at a more even rate, with changes occurring in proportions more than in actual size. This stage is followed by a spurt of rapid growth which lasts 2 or 3 years. By this time, the individual will have reached maturity. He will measure between 5 and 6 feet, give or take a little, and will weigh between 85 and 250 pounds. All of this change occurs in about one-fifth of the entire lifespan.

Physical development is closely paralleled by mental development. When physical development is rapid, so is mental development. Just as physical development is marked by changes in body proportions as well as by increase in size, so mental development is characterized by different rates of growth for memory, reasoning, association, and other mental abilities. The typical curve of mental growth, as shown in Figure 3-1, displays the same pattern as that of physical development.

Social Expectations

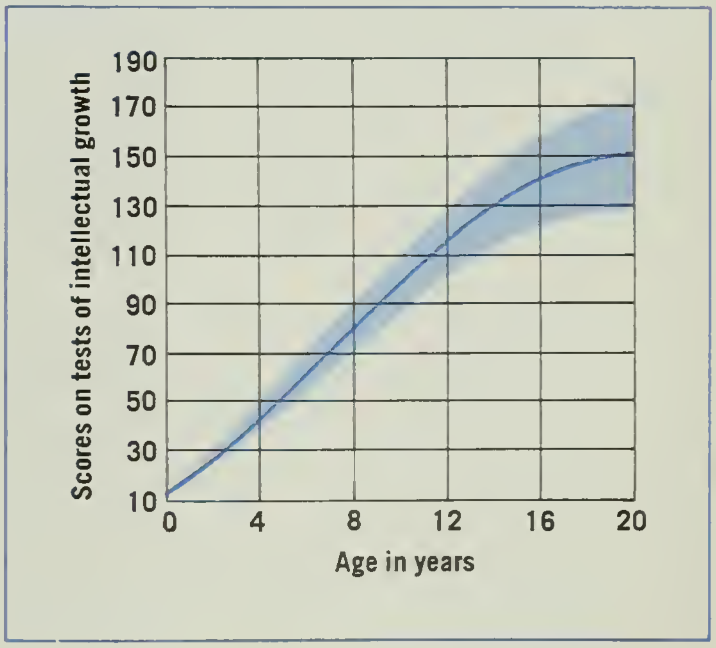
The social group expects the child to make certain adjustments during each period of development. When the adjustments are difficult, development slows down. When the adjustments are easier, development speeds up. Chilman puts it this way: "Some stages are more critical and arduous than others. The spiral staircase, used symbolically here, is not uniformly steep in ascent: there are landing or resting places, as it were" (37).

DEVELOPMENTAL TASKS

In every cultural group, experience has shown that people learn certain behavior patterns and certain skills more easily and more successfully at some ages than at others. The group then comes to expect each individual to perform according to this timetable of development. Such social expectations are known as "developmental tasks" (67, 130). Neugarten (96) writes:

> *Every society is age-graded and every society has a system of social expectations regarding age-appropriate behavior. The individual passes through a so-*

Figure 3-1. The pattern of intellectual development from birth to 20 years. The shaded area shows the normal deviations at different age levels. (Adapted from N. Bayley, On the growth of intelligence, Amer. Psychologist, *1955, 10, 805-818. Used by permission.)*



all Pass through Dev. Stages

> *cially-regulated cycle from birth to death as inexorably as he passes through the biological cycle: and there exists a socially prescribed time table for the ordering of major life events. . . . Although the norms vary somewhat from one socioeconomic, ethnic, or religious group to another, for any social group it can easily be demonstrated that norms and actual occurrences are closely related.*

People of all ages are well aware of these "social clocks." Even young children know, from what people say to them and ask them to do, that certain things are expected of them. They soon realize, from the approval or disapproval of their behavior, that these social expectations largely determine the pattern of their learning.

In a culture that is relatively static, developmental tasks remain much the same one generation after another. In a changing culture, however, the new generation must perform new developmental tasks, while some of the old tasks will become less important or be eliminated. In a culture that changes from hand labor to machine labor, for example, learning hand skills becomes less important than learning to operate machines.

Havighurst defines a developmental task as a "task which arises at or about a certain period in the life of an individual, successful achievement of which leads to his happiness and success with later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks." Some developmental tasks arise mainly as a result of physical maturation (learning to walk); others are developed mainly from the cultural pressures of society (learning to read or learning appropriate sex roles); still others grow out of the personal values and aspirations of the individual (choosing and preparing for a vocation). Most developmental tasks arise from all three of these forces working together (67). The major developmental tasks for childhood are shown in Box 3–2.

Critical Ages for Learning Developmental Tasks. The ages at which the child is expected to master the developmental tasks set by the cultural group are critical in the sense that they pinpoint a time when he is under pressure to learn a new pattern of behavior. Regardless of how much the child wants to grow up and assume new rights and privileges, the transition from one developmental stage to another is always emotionally disturbing. It means breaking off old habits and replacing them with new ones which can be acquired only by long and laborious learning.

These ages are also critical because the manner in which the child performs will determine how happy he will be and how the social group will judge him. If he masters the developmental tasks, his happiness now and in the future is likely to be enhanced, but, even more important, his approval by the social group is assured.

Failure to Master Development Tasks. Not every child masters all the developmental tasks the social group regards as appropriate for his age. One of the many reasons for failure may be *retardation in developmental level.* The child who enters puberty late finds that his physically immature body militates against his success in establishing social relationships with his age-mates. This is largely because his psychological development parallels his physical development, and he is likely to be immature in his interests and behavior as well as appearance.

A second cause of failure may be *lack of opportunity to learn.* The young child who is overprotected by an anxious mother may not have a chance to learn the self-help and play skills that other children his age have mastered. Studies of institutionalized children have shown that, because they have little handling by attendants and little encouragement to learn, they are backward in creeping, sitting, standing, walking, and talking as compared with children the same age who grew up in their own homes and were encouraged to learn motor skills (44, 130).

Far more common as a cause for failure is *lack of motivation.* The child who finds it easier to depend on parents or teachers for help rather than work things out for himself will not even master patterns of behavior that his age-mates have mastered and moved beyond. Failure to learn to read and write at the appropriate age is an example. When the child discovers the handicap he is under, that may provide the necessary motivation. By then, however, there will be new developmental tasks to master and he will be faced with having to learn the old and new simultaneously.

Failure to master the appropriate developmental tasks has three consequences. *First,* it makes the individual feel inferior, and this leads to unhappiness. *Second,* it results in social disapproval, which is often accompanied by social rejection. The child is considered immature and babyish. *Third,* it makes the mastery of new developmental tasks difficult. Each year, the child will lag further and further behind because he will not have the necessary foundations on which to build.

Corey and Herrick have written that the developmental tasks are like lessons that must be learned if the individual is to make a normal and wholesome adjustment to his culture. The person who fails to learn is punished in various ways. The punishment may be calculated and overt, as of persons who engage in unorthodox sex practices, or it may be self-inflicted, like the anxiety of the coward (38).

Precocious Mastery of Developmental Tasks. The child who is precocious in mastering the developmental tasks set by the social group is rewarded by social approval and self-approval. Both of these contribute to his happiness. Social approval, in addition, puts him in line for leadership roles because he is judged by his age-mates to be superior in skills and general maturity. Self-approval contributes to self-confidence and provides a strong motivation to live up to social and self expectations.

Precocious mastery of developmental tasks may reflect above-average intelligence. Usually, however, it is the result of conditions that are the reverse of those which lead to failure to master the tasks. The child who is *accelerated in physical maturity*, owing to favorable prenatal and postnatal care, is stronger and more energetic than the norm for his age. Energy plays an important role in the mastery of all developmental tasks, while strength adds to the advantage given by energy in mastering those requiring skill.

Children whose environments offer *opportunities for learning*, combined with *encouragement* to take advantage of these opportunities, will, other factors being equal, be precocious in mastering the appropriate developmental tasks. Children who receive *guidance* from parents, older siblings, teachers, or other adults are likely to learn faster than those who learn mainly from trial and error or from imitating a childish model.

Development: The Product of Maturation and Learning

One of the oldest controversies in the world of science concerns the relative importance of heredity and environment in determining the physical and mental characteristics of the developing child. Despite wide scientific and practical interest in this problem, valid evidence is still far from adequate to solve it to everyone's satisfaction. As was pointed out in Chapter 2, no completely acceptable method has been found to isolate the influence of heredity from that of environment. There is always the possibility of psychological dam-

Box 3–2

HAVIGHURST'S DEVELOPMENTAL TASKS FOR CHILDHOOD Know

Birth to 6 Years

- Learning to walk
- Learning to take solid foods
- Learning to talk
- Learning to control the elimination of body wastes
- Learning sex differences and sexual modesty
- Achieving physiological stability
- Forming simple concepts of social and physical reality
- Learning to relate oneself emotionally to parents, siblings, and other people
- Learning to distinguish right and wrong and developing a conscience

6 to 12 Years

- Learning physical skills necessary for ordinary games
- Building wholesome attitudes toward oneself as a growing organism
- Learning to get along with age-mates
- Learning an appropriate masculine or feminine sex role
- Developing fundamental skills in reading, writing, and calculating
- Developing concepts necessary for everyday living
- Developing conscience, morality, and a scale of values
- Achieving personal independence
- Developing attitudes toward social groups and institutions

age to the children used as subjects for scientific experimentation.

The evidence seems to indicate that the development of physical and mental traits comes partly from an intrinsic maturing of those traits and partly from exercise and effort on the part of the individual. Which plays the more important role is still a matter of conjecture (5, 63, 76, 98, 126).

MATURATION

Intrinsic maturing—*maturation*—is the unfolding of traits potentially present in the individual because of his hereditary endowment. It is, as Gesell has said, the "net sum of the gene effects operating in a self-limited life cycle." Gesell adds, "Here lies an important key to his [the individual's] constitutional individuality" (57).

In *phylogenetic* functions—functions common to the race—such as crawling, creeping, sitting, and walking, training per se is of little advantage. Controlling the environment in such a way as to reduce opportunities to practice may, on the other hand, retard development. By contrast, in *ontogenetic functions*—functions specific to the individual—such as swimming, roller skating, tricycle riding, or scaling inclines, training is essential; without it, development will not take place. No hereditary tendency can mature fully, however, without proper environmental support. As Caldwell has emphasized, "The milieu in which development occurs influences that development" (33).

LEARNING

Learning is development that comes from exercise and effort. Through learning, the child acquires competence in using his hereditary resources. He must, however, have opportunities to learn. A child with superior neuromuscular organization, for example, may have a high aptitude for musical performance, but if he is deprived of opportunities for practice and systematic training, he will not develop his hereditary potential.

Some learning comes from practice or the mere repetition of an act. This, in time, brings about a change in the person's behavior. Such learning may consist of *imitation*, in which the child consciously copies what he sees others do. Or it may consist of *identification*, in which he attempts to adopt as his own the values, attitudes, motives, and behavior of persons whom he admires or loves.

Learning may come from *training*, that is, from selective, directed, and purposive activity. The child is directed in his behavior by adults or older children who attempt to mold his behavior into patterns that will contribute to his welfare and be acceptable to his social group.

INTERACTION OF MATURATION AND LEARNING

Development during the prenatal period comes mainly from maturation and is very little dependent upon activity. There is evidence, however, that fetal activity is related to the development of certain motor performances in early postnatal life (57, 112). Infants who were highly active as fetuses, for example, acquire skills at an earlier age than those who were less active. Postnatal maturation and learning are closely interrelated; one influences the other. There is a high correlation between gross physical development and the ability to manipulate the parts of the body that have grown (65).

Development thus depends on the interaction of this hereditary endowment and the social and cultural forces of the environment. Bühler writes that the events which influence a person's life are a counteragent to his own dispositions. They may either support or impede his goal setting (30).

Gesell has pointed out that in the interaction between hereditary potentials and environmental forces, there seems to be a "ground plan for development governed by an inherent dynamic morphology, imposed by a combination of racial and familial inheritance. For this reason a child of a given stock in a given culture tends to exhibit at advancing age levels maturity traits which are more or less typical for the group as well as representative of his constitutional self" (57). Thus maturation provides the raw material for learning and determines to a large extent the more general patterns and sequences of the child's behavior.

Significance of the Maturation-Learning Interrelationship. A number of significant facts of both theoretical and practical value come from our present evidence of the interrelationship of maturation and learning.

First, the interrelationship explains the marked variations in the patterns of development of different children. Were human development due to maturation alone, as in some animal species, there would be no such thing as individuality.

Second, maturation sets limits beyond which development cannot go even when learning is encouraged. Gesell has said, "This intrinsic growth is a gift of nature. It can be guided, but it cannot be created: nor can it be transcended by an educational agency" (57). In the early days of child psychology, there was a tendency to accept the popular belief that a person can do or become whatever he wants, as long as he is willing to work hard and is given the opportunity. J. B. Watson, for example, maintained that he could train any normal infant to become any kind of specialist he wished—doctor, lawyer, artist, or even beggar and thief—regardless of the child's talents, abilities, tendencies, and racial origin (121). This early overemphasis on the influence of learning has gradually been abandoned. Studies of intelligence, aptitudes, and physical growth have revealed differences in ability which are, to a large extent, immune to environmental influences (19, 31, 70). The inability to educate mentally defective children as normal children are educated is a practical illustration of the limiting effects of heredity.

Third, few people, if any, ever reach their maturational limits. Many very bright children become underachievers in school, for example, and never realize how great their capacities are. When they reach a temporary plateau in learning, they often conclude that they have reached their limit.

Fourth, for full development, innate capacities must be stimulated by environmental factors. Knobloch and Pasamanick (81) have written:

> *The biological determinants serve primarily to establish the physiological limits and the floor of potential in the organism. The sociocultural factors, on the other hand, are like the soil in which the plant is nurtured. By enrichment or impoverishment, human behavior potential can be made to blossom or wither, to acheive the limits or to fall short of them.*

Stimulation to the development of innate abilities usually comes from the environment, but it may come from within the child. When a child sets a goal for himself, he will try to reach it. He will often have to draw upon all his resources and use them to the maximum, especially when the goal is beyond his capacities. Self-direction can be as powerful a stimulant to development as outer direction, though the former is less common in early childhood than the latter. Only after a child has learned how important achievement is to social recognition has he the motivation to aspire to high goals.

Fifth, and perhaps the most significant point about the interrelationship of maturation and learning, the effectiveness of learning depends upon proper timing. A child cannot learn until he is ready to learn. This means that the necessary physical and mental foundations must be present before new abilities can be built on them. While structure and function parallel each other in childhood, structure actually precedes function. This is true for motor skills, mental skills, and sexual behavior.

If the child is not ready to learn, teaching may be a waste of time and effort. It may lead to resistant behavior which militates against successful learning. Scott has warned that it may result in the learning of bad habits or in learning "not to learn," either of which will be a handicap (106). If, on the other hand, the child is mature enough to learn but is not permitted to, he may lose interest. Later, when parents or teachers decide that the time has come for him to learn, he may be unwilling to put forth the necessary effort. As Harris has stressed, a person who comes late to his training may never realize the full measure of his potential (66).

Havighurst has referred to maturational readiness as the teachable moment: "When the body is ripe, and society requires it, and the self is ready to achieve a certain task, the teachable moment has come. Efforts at teaching which would have been largely wasted if they had come earlier give gratifying results when they come at the *teachable moment*, when the task should be learned" (67).

DETERMINATION OF READINESS TO LEARN

Schools use standard tests to measure the child's readiness to study such subjects as reading, arithmetic, or a foreign language (6, 71). In everyday life, however, tests are not usually available to answer the question, "Is the child ready to learn?" Three practical and easily applied criteria are generally used by psychologists to indicate the child's state of readiness. These are shown in Box 3-3.

To ensure an accurate picture of the child's readiness, all three criteria should be applied. An interest, for example, may be merely transitory—a whim—resulting from a desire to imitate an older sibling or playmate. If a general interest is sustained for some time, this is a better indication of readiness than a strong interest that is transitory. Parental or peer pressures may cause a child to sustain an interest long enough to justify the conclusion that he has reached the teachable moment. Application of the third criterion—progress with practice—may show, however, that he has not yet reached the point where he can benefit from learning opportunities. When the child's interest wanes quickly or when he seems to make no appreciable improvement, in spite of continued practice, there is reason to doubt that the teachable moment has arrived.

Predictability of the Developmental Pattern

Every species, whether animal or human, follows a pattern of development peculiar to that species. In prenatal development, there is a genetic sequence, with certain traits appearing at fixed intervals. The same orderly pattern is evident in postnatal development, though the individual rate of development may vary more in the postnatal period than in the prenatal (23).

Genetic studies of children over a period of years have demonstrated that behavioral development, too, follows a pattern and that this pattern is relatively little influenced by experience (95, 99, 117). Gesell has concluded from these studies that "every child has a unique pattern of growth but that pattern is a variant of a basic ground plan. The species sequences are part of an established order of nature" (57).

Some Predictable Patterns

From the many evidences of an orderly, predictable pattern in *physical development,* in both prenatal and postnatal life, have come two laws of the directional sequence of development: the *cephalocaudal law* and the *proximodistal law*. According to the cephalocaudal law, development spreads over the body from head to foot. This means that improvements in structure and function come first in the head region, then in the trunk, and last in the leg region. According to the proximodistal law, development proceeds from near to far—outward from the central axis of the body toward the extremities. In the fetus, the head and trunk are fairly well developed before the rudimentary limb buds appear. Gradually, the arm buds lengthen and then develop into the hands and fingers. Functionally, the baby can use his arms before his hands and can use his hands as a unit before he can control the movements of his fingers (57, 120). The laws of developmental direction are illustrated in Figure 3-2.

Box 3-3

CRITERIA TO DETERMINE READINESS TO LEARN

Interest in Learning.

The child shows his interest by his desire to be taught or to teach himself.

Sustained Interest.

When a child is ready to learn, his interest will persist even when he meets obstacles and encounters setbacks.

Improvement.

With practice, the child who is ready to learn will show improvement—even if only slight and gradual.

Longitudinal studies of *intelligence* have revealed that the pattern of mental development is as predictable as the pattern of physical development. The results of several longitudinal studies covering different segments of the life-span from birth to 50 years show that the major part of mental growth comes when the body is developing most rapidly, during the first 16 to 18 years. There is also a predictable pattern for development of the different intellectual functions, such as memory and reasoning, that constitute general intelligence (100, 105).

Genetic studies of babies from birth to 5 years have shown that all young children follow a general *behavioral* pattern. *Specific areas* of development likewise follow predictable patterns. These include different aspects of motor development, emotional behavior, speech, social behavior, concept development, goals, interests, and identification with others. All these patterns will be discussed in subsequent chapters.

One example will suffice at the moment to illustrate how predictable a particular pattern of development is. In the area of academic learning, it has been found that both final marks and achievement scores in the third grade are predictive of subsequent scholastic performance (43). Follow-up studies over a period of 40 years led Oden to conclude that "with few exceptions the superior child becomes the superior adult. . . . The Terman study has shown that the great majority of gifted children do indeed live up to their abilities" (99).

IMPORTANCE OF PREDICTING DEVELOPMENT

Time-consuming and difficult as it is to determine whether a predictable pattern of development exists and what factors may interfere with the pattern, most

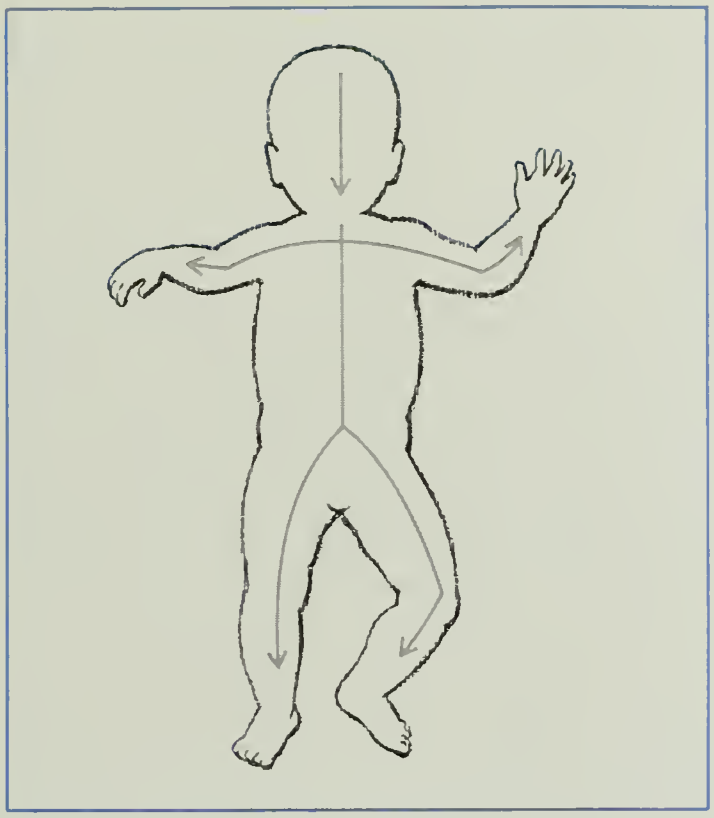


Figure 3–2. The laws of developmental direction. (Adapted from E. L. Vincent and P. C. Martin: Human psychological development. *Ronald, 1961. Used by permission.)*

developmental psychologists consider such information vital. The practical implications of this knowledge are summarized in Box 3–4.

Present evidence based on longitudinal studies shows that when the pattern of physical growth is temporarily upset by such environmental conditions as malnutrition, illness, season of the year, or severe emotional stress, there will be a period of "catch-up" growth after the conditions are removed or ameliorated. Then the child will return to the pattern that he followed earlier, before the interference occurred (116).

The pattern of physical development may be altered permanently by unfavorable environmental conditions before or after birth. Deficiency of thyroid activity during the prenatal period stunts both physical and mental growth, thus producing a "cretin" or deformed idiot. Calcium deficiency during the prenatal and early postnatal months results in rickets—a disease in which the bones do not harden normally, thus resulting in carious teeth, a flat chest, crooked back, or deformed pelvis. Whether interferences in the pattern of mental development are mainly environmental in origin or are traceable primarily to malnutrition, glandular deficiencies, or other physiological factors has not yet been thoroughly explored.

Characteristics of the Developmental Pattern

The patterns of development of physical and mental abilities show certain common and predictable characteristics.

Similarity in Patterns. All children follow a similar developmental pattern, with one stage leading to the next. The baby stands before he walks, for example, and draws a circle before a square. In no instance is this order normally reversed. Furthermore, the general pattern is not altered by individual variations in speed of development. The child who is born prematurely may lag behind in development for about a year, but after that he usually catches up to the norm for full-term babies and follows the same pattern as they and

Box 3–4

PRACTICAL SIGNIFICANCE OF PREDICTING DEVELOPMENT

Mature Size

It is possible to predict at a fairly early age what the child's adult physique will be.

Mental Abilities

Educational plans can be based on the child's early intellectual aptitudes.

Preparation for Next Stage

At every stage of development, the child can be prepared for the next stage.

Vocational Planning

Vocational guidance can be given on the basis of the child's early physical, mental, and personality development.

Adoption

Since early patterns of physical and mental development are predictive of later development, they can be used as an aid in selecting babies for adoption.

at about the same rate (40). The very bright child and the very dull child likewise follow the same developmental sequence as the average; the very bright child develops at a more rapid rate, however, and the very dull at a slower rate (80, 117).

From General to Specific Responses. In mental as well as motor responses, general activity always precedes specific activity. The fetus moves its whole body but is incapable of making specific responses. So it is in early postnatal life. The baby waves his arms in general movements before he is capable of as specific a response as reaching.

In speech, the young child learns general words before specific ones (92). He uses the word "toy," for example, before he learns to call each toy by its name.

In emotional behavior, the baby first responds to strange or unusual objects with a general fear; later his fears become more specific and are characterized by different types of behavior, such as crying, running away and hiding, or standing his ground and pretending that he is not afraid (26).

Continuity. A superficial study of one feature, such as height, might lead one to believe that the child grows by fits and starts. Likewise, the use of such terms as "babyhood" and "adolescence" suggests that there are definite periods when development takes place and others when it ceases. This, however, is not true. Development is continuous from the moment of conception to death, but it occurs at different rates—sometimes slowly and sometimes rapidly (20).

The appearance of baby teeth, often overnight, may lead one to conclude that they developed suddenly. They did not. As early as the fifth fetal month, teeth begin to develop, but they are not ready to cut through the gums much before the baby is 5 months old. Similarly, speech does not develop overnight. Instead, it gradually evolves from the coos, gurgles, and babbling sounds made by the baby from the time of birth.

Since development is continuous, what happens at one stage influences the following stage. Unhealthy attitudes about self or about relationships with others during the early years, for example, are rarely eliminated completely. They are reflected in the individual's outlook on life even in middle and old age.

Variable Rates of Development. While the development of different physical and mental traits is continuous, it is never uniform for the entire organism. If the body is to attain its adult proportions, inequalities in rate must occur. The feet, hands, and nose, for example, reach maximum development early in adolescence, while the lower parts of the face and the shoulders develop more slowly. Refer to Figure 3–3 for a graphic illustration of the differences in body proportions of a newborn infant and an adult.

Measurements of intellectual capacities reveal that they, like physical traits, develop at different rates and reach maturity at different ages. Creative imagination, for example, develops rapidly in childhood and reaches its peak early in adolescence. Reasoning, on the other hand, develops more slowly. Rote memory and memory for concrete objects and facts develop more quickly than memory for abstract, theoretical material (16, 23, 105).

Variations in the rate of development of different physical and mental traits, especially when pronounced, lead to many adjustment problems. The "superior-immature" child, whose intellectual development outpaces his physical, social, or emotional development, will be out of step with both his contemporaries and older children. Similarly, the fact that some parts of the body reach their mature size earlier than others accounts in part at least for the awkwardness and self-consciousness of the young adolescent.

Correlation in Development. Gesell stressed the correlation of various areas of development when he said, "The products of growth are envisaged as a fabric in which threads and designs are visible" (57). Correlation between physical and mental development is especially marked. Body configuration—the relationship of the different areas of the body to one another as well as to the total form—is associated with school readiness because of the correlation of mental and physical development. There is also a marked association between sexual maturing and patterns of interest and behavior. As a result, early maturers differ not only in physical but in mental and behavioral development from late maturers of the same age.

We noted in Chapter 1 a number of popular beliefs or old wives' tales about high levels of intelligence. One belief holds that nature compensates for inadequacies in one area by greater development in other areas. The girl who is "beautiful but dumb" and the boy who is "brainy but a physical weakling" are stereotypes of this belief. The belief has not been validated by experimental studies. Terman and Oden concluded, on the basis of genetic studies, that "desirable traits tend to go together. No negative correlations were found between intelligence and size, strength, physical well-being, or emotional stability" (117).

Individual Differences

Although the pattern of development is similar for all children, each child follows the predictable pattern in his own way and at his own rate. Some children develop in a smooth, gradual, step-by-step fashion, while others move in spurts. Some show slight swings, while others show wide ones (58). All children do not, therefore, reach the same point of development at the same age. Frank (52) has described the individuality of development thus:

> *The life career is a broad highway along which every individual must travel. Each individual, with his unique heredity and nurture (including prenatal) will travel along that highway at his or her own rate of progress and will attain the size, shape, capacity, and developmental status which are uniquely his or her own at each stage in the life career.*

CAUSE OF DIFFERENCES

Individual differences in development are influenced by both internal and external conditions. *Physical development,* for example, depends partly on hereditary potentials and partly on such environmental factors as food, general health, sunlight, fresh air, climate, emotions, and physical exertion.

Intellectual development is affected by such factors as inherent capacity, the emotional climate, whether one is encouraged to pursue intellectual activities, whether one has a strong intellectual drive, and whether one has opportunities for experiences and learning.

Personality development is influenced by attitudes and social relationships, both in the home and outside.

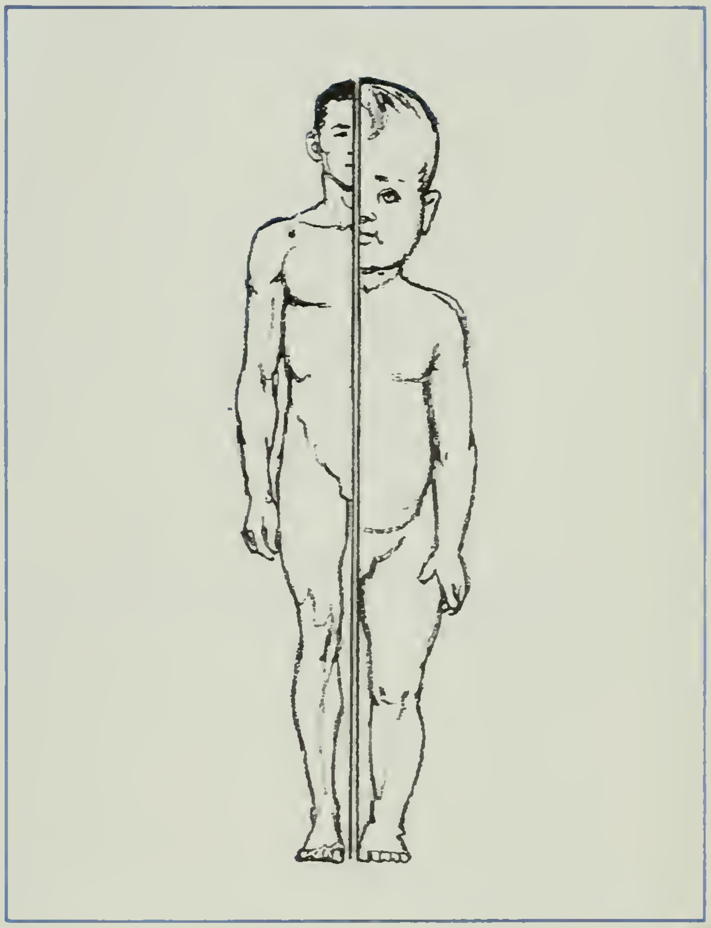
CONSISTENCY WITHIN PATTERNS

Even though the rate of development varies among children, each child displays a certain *consistency of development.* This means that the child will follow a pattern that is characteristically his, controlled by his unique combination of heredity and environment. Commenting on this consistency, Bayley (16) stated:

> *We were amazed at the precocity of some of the babies whose mothers seemed not very bright, and embarrassed at the poor records of other babies who, by the laws of inheritance, should have done better. But we soon found that our embarrassments and amazements were alleviated with time: a slow baby would forge ahead and redeem his inheritance, a precocious infant often seemed to rest on his laurels, while the others caught up with him.*

Studies reveal that children who are tall at one age are tall at other ages, while those who are short remain short (120). Growth curves of the mental age of bright, average, and dull children show a similar consistency. Children with accelerated mental growth continue to be accelerated. Those who are mentally deficient rarely catch up, but are likely to become more and more retarded as they grow older (100, 108).

Figure 3–3. The body proportions of the newborn infant and adult. (After Stratz, from K. Bühler: Mental development of the child. *Harcourt Brace Jovanovich, 1930. Used by permission.)*



Retests of the intelligence of children from birth to maturity reveal a strong underlying consistency. Figure 3–4 shows curves for five boys and five girls, from 1 month to 25 years. They are relatively similar at first, but around 6 years of age, individual differences begin to appear. The early similarity may not actually be as great as it appears: Tests for the early years may not be as diagnostic of differences as those for the older age levels (16).

PRACTICAL SIGNIFICANCE OF INDIVIDUAL DIFFERENCES

Knowing that individual differences exist among children is of practical value to teachers and parents in coping with problems of development.

First, all children of the same age are not expected to behave in the same way. A child of normal intelligence who comes from a culturally deprived environment cannot be expected to learn to read as early as a child with the same mental ability whose parents put high value on education and encourage him to take an interest in reading.

Second, individual differences are responsible for individuality. Individuality, in turn, makes people interesting to others. The child who shows creativity in his thinking and behavior, for example, will contribute more to the activities of the group than the child who merely thinks, says, and does what his age-mates think, say, and do. The importance of individuality will be discussed in detail in the chapter on creativity.

Third, the same child-rearing methods are not appropriate for all children. What works with one child may fail with another. One child, for example, may respond favorably to authoritarian control because it gives him a feeling of security. Another may respond with antagonism and resentment. One child may react favorably to competition with other children. Another may become so tense and nervous that he works far below his capacities.

Early Development Is More Important than Later Development

In building, the foundations of a house are more important than the superstructure: so it is in the development of physical and mental traits. Good physical and mental potentials can be seriously damaged by unfavorable environmental conditions during prenatal and early postnatal life. Later, such conditions are less damaging.

The plasticity of the human physical and nervous structures makes it possible for a child to be molded into patterns that would be impossible in animals, where such structures are nearly ready to function at birth. Because of this plasticity, the child can learn varied types of adjustment and, as a result, can make greater progress and rise to a higher level of development. This great plasticity of the child is not always an advantage, however. Like clay that can be transformed into a work of art or a monstrosity, the young child can be molded into a well-adjusted or maladjusted person.

SCIENTIFIC EVIDENCE

The first important scientific clue of the significance of the early years came from Freud's studies of personality maladjustments. Such maladjustments Freud found, could be traced to unfavorable childhood experiences (53). More recent studies have substantiated Freud. The histories of maladjusted children from preschool years into high school or college have revealed that most of them were so poorly adjusted as young children that they never belonged to any group or had many friends. In addition, many suffered from speech, academic, and enuretic difficulties and were regarded by their families as "problem children" (12, 32, 42, 59, 69, 131).

One study found that children with low adjustment scores in nursery school were high in mental health service in high school. These results led Westman et al. (125) to conclude:

> *Evidence contradicts the time-honored notion that children outgrow behavior problems seen in early life and supports the thesis that drastic shifts in manifest behavior tend not to occur during the first 18 years of life. Children with adjustment problems in nursery school tend to have adjustment problems in later school life and these problems tend to be of the same order.*

The persistence of early patterns of behavior has been demonstrated by studies in several areas of development. In attitudes and values and in preferred leisure activities, people change little as life progresses, even when marked cultural changes are taking place (27, 28, 67, 124). This constancy makes many adults seem rigid or set in their ways. It is at the basis of much of the generation gap between parents and children. Studies of personality and delinquency-proneness have likewise revealed that early patterns persist relatively unchanged as time goes on (2, 3, 61, 112). These results justify the conclusion that the "foundations and most of the framework of the human action system are laid down in the first decade" (58).

CONDITIONS AFFECTING EARLY FOUNDATIONS

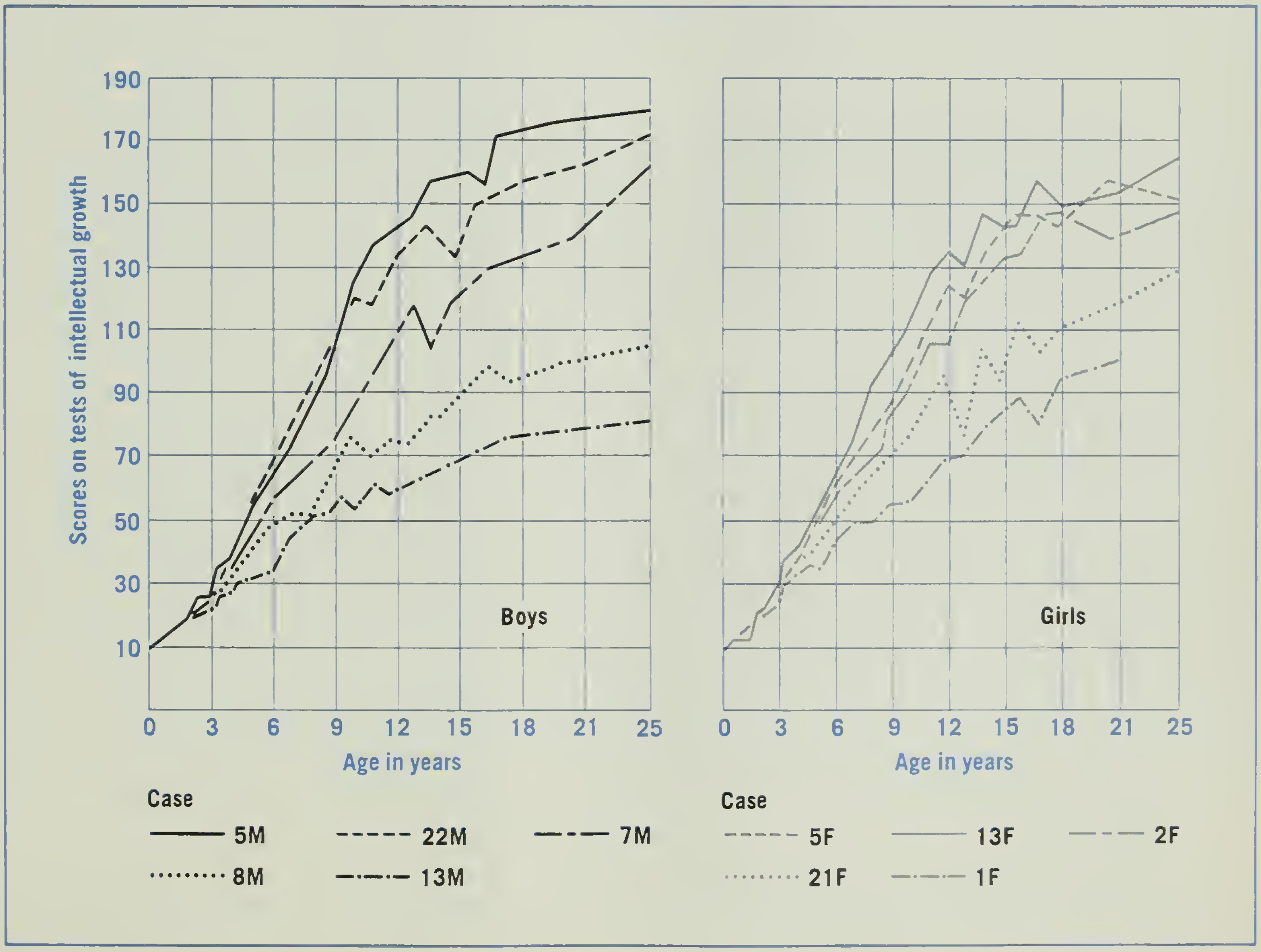
The environment has a strong impact on a person's hereditary potentials during the early, formative years. Four influential environmental factors can be singled out.

Favorable interpersonal relationships, especially with family members, will encourage the child to develop outgoing tendencies and to become outer-bound—a characteristic that leads to good personal and social adjustments. Unfavorable relationships usually encourage the child to become self-bound—a characteristic that leads not only to poor personal and social adjustments but also to unhappiness.

Emotional deprivation, resulting from rejection by family members, separation from parents, or death of a parent, often leads to personality disorders. Emotional satisfaction by contrast, encourages healthy personality development.

Child-training methods used in the home have a marked influence on later development. Children brought up by permissive parents tend, as they grow older, to lack a sense of responsibility, to have poor emotional control, to meet frustration with aggres-

Figure 3-4. Individual differences in the intellectual development of 5 boys and 5 girls. (Adapted from N. Bayley, On the growth of intelligence, Amer. Psychologist, *1955, 10, 805-818. Used by permission.)*



siveness, and to become academic underachievers. Those brought up by democratic or even slightly authoritarian parents develop better emotional control and a sense of responsibility. As a result, their achievements tend to come up to their expectations and their capacities.

Early role-playing, especially in the home, leaves its mark on the child's characteristic patterns of adjustment. The firstborn child who is expected to take care of younger children, for example, often develops a lifelong habit of bossing other family members, including his own spouse and children.

Importance of Early Foundations. Two implications can be drawn from a recognition of the influence of early foundations on later life. *First,* since learning plays an increasingly dominant role in development as the child grows older, he can be directed into channels that will lead to good adjustment. Basically this task must be handled by the family, though the larger social group must provide a culture in which the child can fulfill his potentials. As Douglass (45) said:

> *To consider the child as the father of the man is to proceed on the belief that man can become only the composite of all his past experiences. It also assumes that society selectively can choose the values it wishes to instill in its children, and, in effect, that we possess the ability, the wisdom, and the resources to predetermine the types of men and women which our society will require in the years ahead.*

Allowing a child to grow up doing what he wishes when he wishes is obviously unfair to him. A child is too inexperienced to know when he is on the right or wrong track. How can a child know, for example, that mispronunciations and grammatical errors will create the impression that he is an ignorant person? How can he know that aggressive attacks on playmates will win more enemies than friends?

Guidance is most needed in the early stages of learning when the foundations are being laid. If the child is put on the right track at first and encouraged to remain there until he becomes accustomed to it or realizes why it is best, he will be less likely to get on the wrong track later.

The *second* implication of the importance of early foundations is that sometimes it is desirable to make changes in what has been learned. The sooner the change is made, the easier it is for the child, and consequently, the more cooperative he will be in making the change. Once a child learns to use his left hand efficiently, for example, he will rebel against learning to shift to the right.

Development Proceeds by Stages

As Feldman has pointed out, "Human life proceeds by stages. The life periods of the human individual are no less real and significant than the geological ages of the earth or the evolutionary stages of life. . . . Each stage is distinguished by a dominant feature, a leading characteristic, which gives the period its coherence, its unity, and its uniqueness" (50).

At different ages certain traits stand out more conspicuously than others. It is possible, therefore, to mark off major periods each characterized by a specific kind of development which overshadows all others. Owing to individual variations, the age limits for these periods can be only roughly predicted. Apropos of this, English has commented, "Let us frankly admit that all the distinctions are arbitrary. There is not one of the life periods which could not perfectly well have its limits shifted forward or backward (48)." Bijou has suggested that the stages be marked off not by age but by biological events and changes in the individual's behavior (20).

The five major developmental periods in childhood begin with the moment of conception and end when the child becomes sexually mature. These periods, with their characteristic forms of development and *approximate* ages, are shown in Box 3-5.

PHASES OF EQUILIBRIUM AND DISEQUILIBRIUM

In the developmental pattern, some phases are characterized by "equilibrium" and others by "disequilibrium." In the former, the child is making good adjustments and is easy to live with. In the latter, his adjustments appear to be disrupted by conditions within himself or by environmental factors; there are tensions, indecisions, insecurities, and other behavior problems. As a result, the child is difficult to live with. His behavior difficulties are not individual aberrations but are characteristic of his age level and, hence, predictable.

Figure 3-5 shows the periods of equilibrium and disequilibrium between the ages of 18 months and 6 years. Between 6 years and the onset of puberty, equilibrium prevails. A new period of disequilibrium occurs, however, as childhood draws to a close, during the time of the puberty changes.

Just as there are predictable ages of equilibrium and disequilibrium, so there are predictable patterns of behavior at these ages. As Ames and Ilg (4) have noted:

> *Behavior, like physical structure, has shape and pattern, and also like physical structure, it grows through a series of patterned, predictable changes. They may differ in manner of expression and timing but are consistent in basic structure and sequence from one organism to another.*

During periods of disequilibrium, the child seems to be making an effort to snap the old bonds. The "good" child is suddenly "bad." He has difficulties in eating and sleeping and in adapting to people and life in general. Parents tend to blame the changes on environmental conditions.

By contrast, during periods of equilibrium, the child is in focus and shows signs of good social adjustment. He not only adapts better to people and to environmental demands, but he is happier and more relaxed.

Boys and girls develop at different rates, and their periods of equilibrium and disequilibrium occur at slightly different ages. This is especially true as childhood draws to a close, because girls begin their puberty changes approximately a year earlier than boys. Within each sex group there are also differences between early and late maturers.

PRACTICAL SIGNIFICANCE OF DEVELOPMENTAL STAGES

In spite of the differences noted above, all children normally pass through the different stages of development at approximately the same ages. Therefore, child training and provisions for learning are planned to fit into the pattern most characteristic of children of a given cultural group. Further, the cultural group expects each child to master the developmental tasks it sets for these stages.

A slight variation from the norm can generally be compensated for with help from parents and teachers. When deviations are great, special provisions must be made. Otherwise, the child will be too out of step to profit from the learning experiences provided for his age-mates. Unfortunately, the necessity of special learning opportunities for those who deviate from the norm is not always recognized. As a result, far too many children are expected to adjust to an environment unsuited to their individual levels of development.

When the developmental pattern is normal, one stage prepares the child for, and leads him successfully into, the next. In social development, for example, the preschool child is expected to learn to make so-

Box 3-5

MAJOR DEVELOPMENTAL PERIODS

Prenatal Period (Conception to Birth)

Before birth, development is extremely rapid. It is mainly physiological and consists of the growth of all the bodily structures.

Infancy (Birth to 10-14 Days)

This is the period of the *newborn,* or the *neonate* (derived from the Greek word *neos,* "new," and the Latin verb, *nascor,* "to be born"). During this time, the infant must adjust to a totally new environment outside the mother's body. Growth is temporarily at a standstill.

Babyhood (2 Weeks to 2 Years)

At first, the baby is completely helpless. Gradually he learns to control his muscles so that he can become increasingly self-reliant. This change is accompanied by a growing resentment against being babied and a growing desire to be independent.

Childhood (2 Years to Adolescence)

This period is usually divided into two subdivisions:

Early childhood (2 to 6 years) is the preschool or "pregang" age. The child seeks to gain control over his environment and starts to learn to make social adjustments.

Late childhood (6 to approximately 13 years in girls and 14 years in boys) is the period in which sexual maturity occurs and adolescence begins. The major development is socialization. This is the elementary school age or the "gang age."

Puberty (11 to 16 Years)

This is an overlapping period; approximately 2 years overlap the end of childhood, and 2 years overlap the beginning of adolescence. Puberty extends from 11 to 15 years in girls and from 12 to 16 in boys. The child's body is now transformed into an adult body.

cial adjustments to his age-mates. If he is deprived of the necessary learning opportunities, he will be unready for the next higher stage, the gang age, when there is little or no adult supervision.

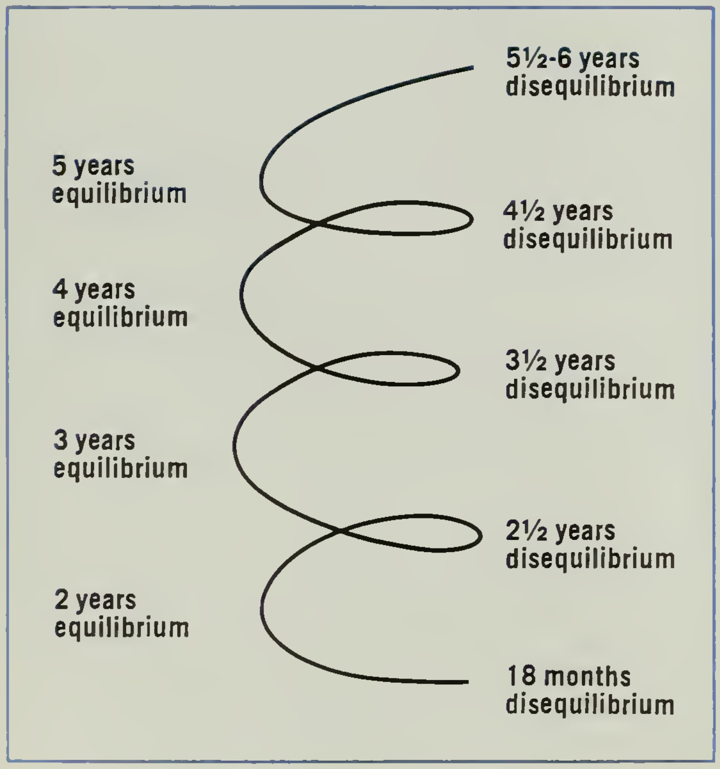
Retardation in an area that is dominant at a given age is likely to interfere with development in related areas. It has been found, for example, that children who are unpopular are deprived of opportunities to become socialized. Cut off from social contacts with age-mates, such children are likewise deprived of opportunities to develop motor skills, communications skills, and emotional control. As a result, the whole developmental pattern is affected.

Each Developmental Stage Has Characteristic Traits

The behavior of any given child at any given age is colored partly by his own basic individuality and partly by the pattern of his age level. There is a consistency in each child which stems from the way he attacks the problems that arise at each stage. This consistency results in individual differences. Lawton (85) has explained these differences in this way:

> *Our life span is divided into periods, each with its own problems of adjustment. These age periods are not related in surface story since the problems change; it is the method of attacking these problems which is likely to remain the same. Throughout the life span, people develop techniques of handling each of their difficulties. Some of these techniques are suitable and efficient, others are inappropriate and wasteful, or a method may be suitable for one age period and not another.*

Figure 3–5. Ages of equilibrium and disequilibrium during the early years of life. (Adapted from L. B. Ames and F. L. Ilg, The developmental point of view with special reference to the principle of reciprocal neuromotor interweaving, J. genet. Psychol., *1964, 105, 195–209. Used by permission.)*



During every stage, some patterns of behavior that are normal for that stage in the child's physical and mental development are judged as "problem" behavior by parents, teachers, and other adults because they do not conform to adult standards. These patterns of behavior arise because of the adjustments the child must make to new demands and new environmental conditions. The more demands and the greater the changes in the environment, the more adjustment problems the child will encounter. During phases of disequilibrium, a constellation of environmental pressures and biological changes affect the child's behavior (123).

CAUTIONS IN JUDGING CHILDREN'S BEHAVIOR

Parents and teachers often regard normal behavior that interferes with the efficient running of the home or school as problem behavior. When they do this, they are likely to develop in the child unfavorable attitudes toward them and toward the situation in which the behavior occurs. The result is that many children then develop real problem behavior, such as lying, sneakiness, or destructiveness, as a way of getting their revenge.

Most forms of real problem behavior are normal for a younger age. A child may cling to immature behavior because he has not yet learned to meet his needs in a more mature manner or because he derives less satisfaction from mature behavior. A child who reverts to infantile behavior when he is jealous derives satisfaction from the attention his helplessness brings. If he persists in this pattern, it is symptomatic of some disturbance in his social relationships and may be regarded as true problem behavior. Stealing, for example, will be tolerated in preschool children, but in an older child or adolescent it will be regarded as "delinquent" behavior.

The fact that certain forms of behavior are normal for certain ages does not make them acceptable. Nor does it mean that they should be tolerated without any effort to change them. If a child is capable of learning to say "No," he is also capable of learning to say "Thank you." If he has enough muscle coordination to grab another child's toys, he has enough muscle coordination to offer the child one of his own toys in exchange.

Naturally, one cannot expect a child to behave like an adult, but one can expect him to learn more and more adult-approved behavior patterns each year. If he does, the unacceptable behavior will gradually be replaced by acceptable behavior. No form of problem behavior should be overlooked on the ground that it is "typical" and that the child will outgrow it. He may, but the chances are just as great that he will not. If it is overlooked, the child is likely to assume that it is acceptable. *Behavior that is not typically found at the child's age or maturity level is a danger signal of possible future trouble.* As such, it should be remedied before it has developed into a habitual method of adjustment.

Happiness Varies with Different Stages of Development

According to tradition, childhood is the happiest period of life. This tradition has been reinforced by another, discussed in Chapter 1, that childhood should be a happy, carefree time to guarantee good adjustment to adult life. There is ample evidence today to show that neither of these beliefs is totally true and that, for many children, they are actually false.

METHODS OF DETERMINING HAPPINESS

The best way to find out if a person is happy is to *ask him.* Happiness is a subjective state, and only the person himself can assess how he feels. Babies and young children, of course, do not have enough language facility to put their feelings into words. Older children lack the perspective of time that would enable them to make comparisons. If a child experiences a frustration, he is likely to say he is unhappy—meaning that he is unhappy at the moment but not that he is unhappy most of the time.

Observations of children give clues as to whether they are happy or unhappy. The expression on their faces, how they adjust to other people and to situations, what they say—all provide some information. Even in repose, the face of a happy child differs markedly from that of one who is unhappy. Happy children are outer-bound in the sense that they are interested in what is going on around them and participate in a friendly, cooperative manner. Unhappy children may participate, but their responses are likely to be aggressive or negative. Many who are unhappy are withdrawn and self-bound.

There are two major drawbacks in using observational techniques to study childhood happiness. *First,* unless one can observe a child long enough to discover his characteristic reaction, one may come away with a false picture. He may appear to be happy at the moment because things are to his liking; in many more everyday experiences, however, he may undergo long periods of unhappiness. *Second,* one must understand that children put up "fronts" to cover their true feelings. A bored and unhappy child, for example, may learn to give the appearance of being happy in school so that the teacher will have a favorable impression of him.

Many studies of childhood happiness have had to rely on *retrospective reports.* This method has several weaknesses: Subjects forget what actually happened or they misinterpret events or say things that they think will impress the interrogator. In such studies, adolescents and adults of different ages have been asked to think back to their childhood days and to tell how happy or unhappy they were. Some of these reports indicate that adults think of childhood as a period of unadulterated bliss (30, 72, 104). Rosenzweig and Rosenzweig have written, "The golden days of childhood, as they appear in the conventional reminiscences of adults, are more consistent with fantasy than with fact. The myths of all races similarly portray the childhood of man as a paradise" (104). In many retrospective reports, however, unhappy memories overshadow the happy ones and do not call forth any desire to return to childhood (14, 15, 30, 49, 83, 111).

PERIODS OF HAPPINESS AND UNHAPPINESS

The results of the various studies of happiness have shown that some ages are, predictably, happier than others. *Babyhood* is, for the most part, one of the happiest periods in the life-span. This is because almost everyone loves a baby and tries to make him happy.

Some babies, however, are not so fortunate. For them, babyhood can be a very unhappy age. Not only are they unwanted but often they are mistreated.

Typically, the second year of life is less happy than the first. During this year, babies are often fretful and irritable when teething, and this makes them less appealing. They dislike being babied, and in showing their independence, become resistant and hard to handle. They resent being frustrated in what they want to do by disciplinary techniques that may include slaps and spanks. Finally, many children are made unhappy during the second year of life by the arrival of a new sibling who becomes the center of parental attention.

Because the environment of the *young child* is largely limited to the home, his happiness depends mainly on how the different members of the family treat him and how pleasant the home climate is. If his siblings refuse to play with him because he cannot keep up to their pace, he will feel unwanted. If his parents show greater interest in other siblings than in him, he will feel unloved. Under such conditions, he can hardly be happy.

Many factors contribute to happiness in *late childhood*. One of the most important is the older child's increased ability to choose his environment. If the child is unhappy at home, he can spend more time at school, on the playground, or in the home of a friend where the climate is better.

Other conditions in late childhood enhance the happiness of the older child. His health is normally better and he is growing at a slower rate, so he is stronger and more vigorous. Once he becomes adjusted to school, the routine remains much the same from grade to grade, so no radical adjustments are necessary. He has learned that he is regarded with favor if he obeys the rules or that he can escape punishment by lying, projecting the blame on others, or rationalizing. He can count on help from his parents with his school work, so his school achievements are usually satisfactory to him. And his circle of acquaintances is large enough for him to be able to select playmates to his liking. While late childhood is not a period of total happiness, it is one of the happiest periods in the life-span.

Just the opposite is true of *puberty:* This is such an unhappy period for many children that they try to escape from life, either by spending their time in a daydream world or by talking about or even threatening suicide. The conditions responsible for this unhappiness are almost the reverse of those which bring happiness during the earlier part of late childhood. Rapid growth and change during puberty lead to fatigue, which predisposes the pubescent to grumpiness. This, in turn, makes him less appealing to family members, teachers, and age-mates. Even a happy home climate is likely to become frictional unless parents and siblings understand that the pubescent is not up to par physically and make allowance for his unsocial behavior. In retrospect, most adults regard puberty as the most unhappy period they have lived through.

Happiness in childhood is a sometime thing. Within each major developmental period, there are times of equilibrium and of disequilibrium. The periods of equilibrium are, on the whole, far happier than the periods of disequilibrium.

FACTORS INFLUENCING HAPPINESS

Variations in happiness stem from a number of factors. Since they affect different children differently, childhood is happier for some children than for others and some stages of childhood are happier than other stages.

The *physical condition* of the child affects his equilibrium and, in turn, affects his happiness. When he is feeling well, he will have the energy necessary to do what he wants to do and what he is expected to do well enough to be satisfied with his achievements.

Environmental upsets which require the child to adjust to new situations lead to periods of disequilibrium and unhappiness. A break in the home pattern, due to death or divorce, for example, requires adjustments in interpersonal relationships which lead to periods of disequilibrium. When adjustments are made, happiness will be restored or perhaps increased.

Being different from age-mates or siblings is likely to make a child feel that he is inferior. And, feeling inferior will never contribute to a person's happiness. If the child is forced to dress differently or is not permitted to do what other children do he will wonder if there is something wrong with him.

The family *socioeconomic status* has little effect on the very young child's happiness. Once a child is old enough to recognize the importance of material possessions, however, his happiness will be greatly affected by what his parents can or will give him as compared with what his age-mates or siblings have. With each passing year, recognition of the role status symbols play in social acceptance increases the importance of the effect family socioeconomic status has on childhood happiness.

Successful achievement, however simple it may be, contributes to happiness at every age. If standards are set too high, children are doomed to failure and unhappiness. One of the reasons early babyhood is such a happy age is that no one expects a baby to perform wonders.

Pleasant *interpersonal relationships* with people who are significant to the child contribute to his happiness at every age. Since the mother is so important to the young child, her treatment of him will determine how happy or unhappy he will be. As the child grows older, his age-mates and teachers become significant to him, and his happiness will be affected by his relationships with them.

SIGNIFICANCE OF HAPPINESS

Happiness has a pervading influence on the child's development. It affects his attitudes, behavior, and personality. Many studies have been made of happy and unhappy children at different ages to determine how they adjust to life and how their behavior measures up to their potentials (72, 102, 119). Some of the ways in which happiness affects the child's characteristic patterns of adjustment are shown in Box 3-6.

By contrast, unhappiness plays havoc with the child's personal and social adjustments. It affects the pattern of his development, and he falls below his capacities in whatever he undertakes. Self-dissatisfaction and unhappiness increase and the damage to personal and social adjustments in turn, is greater. A vicious circle of unhappiness and maladjustment is set in motion. Because of this, there is justification for saying that the traditional belief that childhood should be a happy age is correct, though the emphasis on achieving adult happiness through a carefree childhood is open to serious doubt. Why this is true will be explained in detail in Chapter 18 on personality.

Values of Knowing the Developmental Pattern

Developmental psychologists realize that an accurate picture of the developmental pattern is fundamental to an understanding of children. They also recognize that knowledge of what causes variations in development is essential to an understanding of each individual child.

Knowing what the developmental pattern is like has scientific as well as practical value.

First, knowledge of the pattern of human development helps us to know what to expect of a child, when to expect it, and at what ages different patterns of behavior will normally be replaced by more mature forms. If too much is expected of a child at a given age, he is likely to develop feelings of inadequacy because he does not measure up to the standards his parents and teachers set. If too little is expected, a child is deprived of an incentive to develop his capacities. Equally serious, he builds up resentments toward those who underestimate his capacity.

Second, knowing what to expect enables us to set up standards, or "measuring rods," in the form of height-weight scales, age-weight scales, age-height scales, mental age scales, and social- or emotional-development scales. Since the pattern of development for all normal children is approximately the same, we can judge each child in terms of the norm for his age. If his development is typical, he is making normal adjustments to social expectations. If his development deviates, this may be a signal of poor social, emo-

Box 3–6

HOW HAPPINESS AFFECTS CHILDHOOD ADJUSTMENT

- Happy children are normally *healthy and energetic.* Unhappiness saps their strength and energy and lowers their general physical well-being.
- Happy children turn their energies into *purposeful activities,* while unhappy children dissipate their energies in brooding, daydreaming, and self-pity.
- Happiness supplies a strong *motivation* to do things, while unhappiness stifles motivation.
- Happy children *accept frustrations* more calmly and try to understand the reasons for frustrations. Unhappy children react with temper outbursts, and this militates against their learning why frustrations exist.
- Happiness *encourages social contacts* and participation in social activities. Unhappiness encourages children to be withdrawn and self-bound.
- With repetition, *happiness becomes a habit.* In the same way, unhappiness can develop into a habit.
- A happy childhood does not guarantee adult success, but it *lays the foundation for success,* while unhappiness lays the foundation for failure.

tional, or personal adjustment, and immediate steps should be taken to discover why his development is deviating and what should be done about it. Should the deviation be the result of lack of opportunities to learn, for example, the child must be given learning opportunities and encouragement.

Third, since successful development requires guidance, knowing the developmental pattern enables teachers and parents to guide the child into new channels at the most appropriate time. When a baby is ready to learn to walk, he must be given opportunities to practice walking in a safe place. In addition, he must be encouraged to keep trying until he succeeds. Lack of opportunity and lack of encouragement may delay his normal development.

Fourth, knowing what the normal developmental pattern is makes it possible for parents and teachers to prepare the child ahead of time for the changes that will take place in his body, his interests, or his behavior. For example, the child can be prepared for what will be expected of him when he enters school. While this psychological preparation will not eliminate all tensions, it will go a long way toward minimizing them.

Highlights of Chapter 3

1. Development differs from growth in that developmental changes are qualitative while growth changes are quantitative.

2. The rate of development in childhood is predictable, with periods of rapid development followed by slow development.

3. Social expectations are expressed in developmental tasks, the mastery of which is essential to good personal and social adjustment.

4. Development is a product of maturation (the unfolding of hereditary potentials) and of learning (development that results from effort and exercise).

5. Learning depends on a state of readiness which results from maturation.

6. Because the developmental pattern is predictable, it is possible to plan a child's education, to guide his vocational training, and to prepare him for the next stage of development.

7. The important characteristics of the developmental pattern are that it is similar for all children, that general responses precede specific responses, that development is continuous, that rates of development for different physical and mental traits vary, and that there is correlation in development.

8. Each child follows the predictable pattern of development at his own rate and in his own way. Therefore, children of the same chronological age differ in their patterns of behavior and in their reactions to child training.

9. Early development is more important than later development because the foundations laid in the early years determine what the child's adjustments to life will be.

10. The pattern of development in childhood proceeds by stages: the prenatal period, infancy, babyhood, early and late childhood, and puberty.

11. Within the major stages of development are periods of equilibrium when adjustments are good and the child is happy and periods of disequilibrium when the child experiences difficulties in adjustment and unhappiness.

12. Since each developmental stage has characteristic traits associated with it, such traits may be considered "normal" for that stage. If they persist into the next stage, they are considered problem behavior.

13. Happiness in childhood, which depends partly on the child's adjustments and partly on the treatment he receives from significant people, varies with the different stages of development and has a profound influence on the child's adjustments at each stage.

14. Knowing the normal pattern of development is essential to understanding children, to setting up measuring rods to determine their level of adjustment, and to knowing how to guide their development.

Bibliography

1. Allen, M. G.: Psychoanalytic theory on infant gratification and adult personality. *J. genet. Psychol.*, 1964, **104**, 265–274.
2. Ames, L. B.: Longitudinal survey of child Rorschach responses: Younger subjects aged 2 to 10 years. *Genet. Psychol. Monogr.*, 1960, **61**, 229–289.
3. Ames, L. B.: Longitudinal survey of child Rorschach responses: Older subjects aged 10 to 16 years *Genet. Psychol. Monogr.*, 1960, **62**, 185–229.
4. Ames, L. B., and F. L. Ilg: The developmental point of view with special reference to the principle of reciprocal neuromotor inter-

weaving. *J. genet. Psychol.*, 1964. **105**, 195–209.

5. Anastasi. A.: Heredity. environment. and the question "How?" *Psychol. Rev.*, 1958. **65**, 197–208.
6. Anastasi. A.: *Psychological testing*. 3d ed. New York: Macmillan. 1968.
7. Anderson. J. E.: Behavior and personality. In E. Ginzberg (ed.): *The nation's children.* Vol. 2. *Development and education.* New York: Columbia. 1960. pp. 43–69.
8. Anderson. J. E.: Child development research: The next 25 years. *Child Develpm.*, 1960. **31**, 191–199.
9. Apperson. L. B.: Childhood experiences of schizophrenics and alcoholics. *J. genet. Psychol.*, 1965. **106**, 301–313.
10. Archibald. H. C., D. Bell, C. Miller. and R. D. Tuddenham: Bereavement in childhood and adult psychiatric disturbance. *Psychosom. Med.*, 1962. **64**, 343–351.
11. Baer. D. M.: An age irrelevant concept of development. *Merrill-Palmer Quart.*, 1970. **16**, 238–245.
12. Baker. J. W., and A. Holzworth: Social histories of successful and unsuccessful children. *Child Develpm.*, 1961. **32**, 135–149.
13. Bakwin. H., and R. M. Bakwin: *Clinical management of behavior disorders in children.* 3d ed. Philadelphia: Saunders. 1966.
14. Barschak. E.: Happiness and unhappiness in childhood and adolescence of a group of women students: A comparative study of English and American girls. *Brit. J. Psychol.*, 1952. **43**, 129–140.
15. Baugh. J. R.: The relationship between the reported memories of childhood experiences and present behavior. *Dissert. Abstr.*, 1969. **29** (1–A), 141–142.
16. Bayley. N.: Research in child development: A longitudinal perspective. *Merrill-Palmer Quart.*, 1965. **11**, 183–208.
17. Bayley. N.: Development of mental abilities. In P. H. Mussen (ed.): *Carmichael's manual of child psychology.* 3d ed. New York: Wiley. 1970. vol., 1. pp. 1163–1209.
18. Bernhardt. K. S.: Laying the foundations of mental health in childhood. *Relig. Educ.*, 1956. **51**, 328–331.
19. Bettelheim. B.: Where self begins. *Child & Family*, 1968. **7**, no. 1. 5–9.
20. Bijou. S. W.: Ages. stages. and the naturalization of human development. *Amer. Psychologist*, 1968. **23**, 419–427.
21. Bijou. S. W.: The mentally retarded child. *Psychology Today*, 1968. **2**, 46–51.
22. Blazer. J. A.: Fantasy and its effects. *J. gen. Psychol.*, 1964. **70**, 163–182.
23. Bobroff. A.: The stages of maturation in socialized thinking and in the ego development of two groups of children. *Child Develpm.*, 1960. **31**, 321–328.
24. Bossard. J. H. S., and E. S. Boll: *The sociology of child development.* 4th ed. New York: Harper & Row. 1966.
25. Bowlbey. J.: Childhood mourning and its implications for psychiatry. *Amer. J. Psychiat.*, 1961. **118**, 481–498.
26. Breckenridge. M. E., and E. L. Vincent: *Child development.* 5th ed. Philadelphia: Saunders. 1965.
27. Bronson. W. C.: Central orientations: A study of behavior organization from childhood to adolescence. *Child Develpm.*, 1966. **37**, 125–155.
28. Bronson. W. C.: Early antecedents of emotional expressiveness and reactivity control. *Child Develpm.*, 1966. **37**, 793–810.
29. Brown. F.: Depression and childhood bereavement. *J. ment. Sci.*, 1961. **107**, 754–777.
30. Bühler. C.: The life cycle: Structural determinants of goal setting. *J. humanist. Psychol.*, 1966. **6**, 37–52.
31. Butcher. H. J.: *Human intelligence: Its nature and assessment.* London: Methuen. 1968.
32. Cabak. V., and R. Najanvic: Effect of undernutrition in early life on physical and mental development *Arch. Dis. Childhood.* 1965. **40**, 532–534.
33. Caldwell. B. M.: What is the optimal learning environment for the young child? *Amer. J. Orthopsychiat.*, 1967. **37**, 8–21.
34. Caldwell. B. M.: The effects of psychosocial deprivation on human development in infancy. *Merrill-Palmer Quart.*, 1970. **16**, 260–277.
35. Caldwell. B. M., and J. B. Richmond: The impact of theories of child development. *Children*, 1962. **9**, 73–78.
36. Cattell. R.: Separating endogenous. exogenous. epogenic and epogenic component curves in developmental data. *Develpm. Psychol.*, 1970. **3**, 151–162.
37. Chilman. C. S.: Families in development at mid-stage in the family life cycle. *Family Coordinator*, 1968. **17**, 297–312.
38. Corey. S. M., and V. E. Herrick: The developmental tasks of children and young people. In J. M. Seidman (ed.): *The child: A book of readings.* New York: Holt. 1958. pp. 31–41.
39. Crane. A. R.: The development of moral values in children. II. Preadolescent gangs and the moral development of children. *Brit. J. educ. Psychol.*, 1958. **28**, 201–208.
40. Cutler. R., C. B. Heimer. H. Wortis. and A. M. Freedman: The effects of prenatal and neonatal complications on the development of premature children at two and one-half years of age. *J. genet Psychol.*, 1965. **107**, 261–276.
41. Davis. A., and R. J. Havighurst: *Father of the man.* Boston: Houghton Mifflin, 1947.
42. Davis. R. E., and R. A. Ruiz: Infant feeding method and adolescent personality. *Amer. J. Psychiat.*, 1965. **122**, 673–678.
43. DeBottari. L.: Primary school correlates of secondary school achievement. *Personnel Guid. J.*, 1969. **47**, 675–678.
44. Dennis. W.: Causes of retardation among institutional children: Iran. *J. genet. Psychol.*, 1960. **96**, 47–59.
45. Douglass. J. H.: The child: The father of the man. *Family Coordinator.* 1969. **18**, 3–8.
46. Dunn. H. L.: Dynamic maturity for purposeful living. *Geriatrics.* 1966. **21**, 205–208.
47. Dunphy. D. C.: The social structure of the urban adolescent peer group. *Sociometry*, 1963. **26**, **230**–246.
48. English. H. B.: Chronological divisions of the life span. *J. educ. Psychol.*, 1957. **48**, 437–439.
49. Epstein. R.: Social class membership and early childhood memories. *Child Develpm.*, 1963. **34**, 503–508.
50. Feldman. S.: Origins of behavior and man's life career. *Amer. J. Psychol.*, 1941. **54**, 53–63.
51. Fowler. W.: Problems of deprivation and developmental learning *Merrill-Palmer Quart.*, 1970. **16**, 141–161
52. Frank. L. K.: The concept of ma-

turity. *Child Develpm.*, 1950, **21**, 21–24.

53. Freud, S.: *The standard edition of the complete works of Sigmund Freud.* London: Hogarth, 1953–1962.

54. Gannon, D. R.: Relationship between 8-month performance on the Bayley Scales of infant development and 48-month intelligence and concept formation scores. *Psychol. Rep.*, 1968, **23**, 1199–1205.

55. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. *Genet. Psychol. Monogr.*, 1968, **77**, 169–299.

56. Gardner, R. W.: Individuality in development. *Bull. Menninger Clinic*, 1970, **34**, 71–84.

57. Gesell, A.: The ontogenesis of infant behavior. In L. Carmichael (ed.): *Manual of child psychology*, 2d ed. New York: Wiley, 1954, pp. 335–373.

58. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.

59. Gibson, R. M.: Trauma in early infancy and later personality development. *Psychosom. Med.*, 1965, **27**, 229–237.

60. Glaser, K.: Attempted suicide in children and adolescents: Psychodynamic observations. *Amer. J. Psychother.*, 1965, **19**, 200–227.

61. Glueck, E.: Identification of potential deliquents at age 2–3 years. *Int. J. soc. Psychiat.*, 1966, **12**, 5–16.

62. Gollin, E. S.: An organism oriented concept of development. *Merrill-Palmer Quart.*, 1970, **16**, 246–252.

63. Gottesman, I. I.: Heritability of personality. *Psychol. Monogr.*, 1963, **77**, no. 9.

64. Gould, R. E.: Suicide problems in children and adolescents. *Amer. J. Psychother.*, 1965, **19**, 228–246.

65. Govatos, L. A.: Relationships and age differences in growth measures and motor skills. *Child Develpm.*, 1959, **30**, 333–340.

66. Harris, D. B.: The development of potentiality. *Teachers Coll. Rec.*, 1960, **61**, 423–428.

67. Havighurst, R. J.: *Human development and education.* New York: Longmans, 1953.

68. Hess, J. L.: Scientists debate root of violence. *The New York Times*, May 24, 1970.

69. Hess, R. D., and V. C. Shipman: Early experience and the socialization of cognitive modes in children. *Child Develpm.*, 1965, **36**, 869–886.

70. Honzik, M. P.: Environmental correlates of mental growth: Prediction from the family setting at 21 months. *Child Develpm.*, 1967, **38**, 337–364.

71. Hopkins, K. D., and E. G. Sitkei: Predicting grade reading performance: Intelligence vs. reading readiness tests. *J. exp. Educ.*, 1969, **37**, 31–33.

72. Horowitz, E.: Reported embarrassment memories in elementary school, high school, and college students. *J. soc. Psychol.*, 1962, **56**, 317–325.

73. Horowitz, F. D.: Research strategies and concepts of development. *Merrill-Palmer Quart.*, 1970, **16**, 235–237.

74. Illingworth, R. S.: How to help a child to achieve his best. *J. Pediat.*, 1968, **73**, 61–68.

75. Irwin, O. G.: Infant speech: Effect of systematic reading of stories. *J. speech hear. Res.*, 1960, **3**, 187–190.

76. Jensen, A. R.: How much can we boost IQ and scholastic achievement? *Harv. educ. Rev.*, 1969, **39**, 1–123.

77. Jersild, A. T.: *Child psychology*, 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

78. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.*, 1965, **36**, 899–911.

79. Kagan, J., and N. Kogan: Individual variation in cognitive processes. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 1, pp. 1273–1365.

80. Ketcham, W. A.: Relationship of physical traits and mental traits in intellectually gifted and mentally retarded boys. *Merrill-Palmer Quart.*, 1960, **6**, 171–177.

81. Knobloch, H., and B. Pasamanick: Prospective studies of the epidemiology of reproductive casualty: Methods, findings and some implications. *Merrill-Palmer Quart.*, 1966, **12**, 27–43.

82. Kramer, R.: What we're learning about learning. *The New York Times*, June 11, 1967.

83. Kreitler, H., and S. Kreitler: Unhappy memories of "The happy past": Studies in cognitive dissonance. *Brit. J. Psychol.*, 1968, **59**, 157–166.

84. Lane, E. A., and G. W. Albee: Early childhood intellectual differences between schizophrenic adults and their siblings. *J. abnorm. soc. Psychol.*, 1964, **68**, 193–195.

85. Lawton, G.: *New goals for old age.* New York: Columbia, 1943.

86. Lindzey, G., D. T. Lykken, and H. D. Winston: Infantile trauma, genetic factors, and adult temperament. *J. abnorm. soc. Psychol.*, 1960, **61**, 7–14.

87. Macfarlane, J., L. Allen, and M. P. Honzik: *A developmental study of the behavior problems of normal children between twenty-one months and fourteen years.* Berkeley: University of California Press, 1954.

88. Macy, I. G., and H. J. Kelly: Body composition in childhood. *Hum. Biol.*, 1956, **28**, 289–308.

89. Mahrer, A. R.: Childhood determinants of adult functioning: Strategies in the clinical research use of the personal-psychological history. *Psychol. Rec.*, 1969, **19**, 39–46.

90. Marshall, H. H.: Behavior problems of normal children: A comparison between the lay literature and developmental research. *Child Develpm.*, 1964, **35**, 469–478.

91. McCammon, R. W.: The concept of normality. *Ann. N. Y. Acad. Sci.*, 1966, **134**, 559–562.

92. McCarthy, D.: Language development. *Monogr. Soc. Res. Child Develpm.*, 1960, **25**, no. 3, 5–14.

93. McClearn, G. E.: Genetic influences on behavior and development. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d. ed. New York: Wiley, 1970, vol. 1, pp. 39–76.

94. McGrade, B. J.: Newborn activity and emotional response at eight months. *Child Develpm.*, 1968, **39**, 1247–1252.

95. Mischel, W.: Continuity and change in personality. *Amer. Psychologist*, 1969, **24**, 1012–1018.

96. Neugarten, B. L.: Continuities and discontinuities of psychological issues into adult life. *Hum. Develpm.*, 1969, **12**, 121–130.

97. *New York Times* Report: Tantrums called key to adult life. *The New York Times*, June 22, 1969.

98. *New York Times* Report: Scientists shun confrontation on causes of differences in IQ. *The*

New York Times, May 2, 1970.

99. Oden, M. H.: The fulfillment of promises: 40-year follow-up of the Terman gifted group. *Genet. Psychol. Monogr.,* 1968, **77,** 3–93.

100. Owens, W. A.: Age and mental abilities: A second adult follow-up. *J. educ. Psychol.,* 1966, **57,** 311–325.

101. Piaget, J., and B. Inhelder: *The psychology of the child.* New York: Basic Books, 1969.

102. Pressey, S. L.: The most important and most neglected topic: Potentials. *J. Gerontologist,* 1963, **3,** 69–70.

103. Reimanis, G.: Relationship of childhood experience memories to anomie later in life. *J. genet. Psychol.,* 1965, **106,** 245–252.

104. Rosenzweig, S., and L. Rosenzweig: Aggression in problem children and normals as evaluated by the Rosenzweig Picture Frustration Study. *J. abnorm. soc. Psychol.,* 1952, **47,** 683–688.

105. Schaie, K. W., and C. R. Strother: A cross-sequential study of age changes in cognitive ability. *Psychol. Bull.,* 1968, **70,** 671–680.

106. Scott, J. P.: Critical periods in behavioral development. *Science,* 1962, **138,** 949–958.

107. Sears, R. R., E. E. Maccoby, and H. Levin. *Patterns in child rearing.* New York: Harper & Row, 1957.

108. Simon, M. D.: Body configuration and school readiness. *Child Develpm.,* 1959, **30,** 493–512.

109. Simonson, E.: The concept and definition of normality. *Ann. N. Y. Acad. Sci.,* 1966, **134,** 541–558.

110. Smith, M. E.: A comparison of certain personality traits as rated in some individuals in childhood and fifty years later. *Child Develpm.,* 1952, **23,** 159–180.

111. Smith, M. E.: Childhood memoies compared with those of adult life. *J. genet. Psychol.,* 1954, **85,** 321–335.

112. Sontag, L. W.: Implications of infant behavior and environment for adult personalities. *Ann. N. Y. Acad. Sci.,* 1966, **132,** 782–786.

113. Stevenson, H. W.: Learning in children. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. I, pp. 849–938.

114. Stott, L. H.: The persisting effects of early family experiences upon personality development. *Merrill-Palmer Quart.,* 1957, **3,** 145–159.

115. Sutton-Smith, B.: Developmental laws and the experimentalist's ontology. *Merrill-Palmer Quart.,* 1970, **16,** 253–259.

116. Tanner, J. M.: The regulation of human growth. *Child Develpm.,* 1963, **34,** 817–847.

117. Terman, L. M., and M. H. Oden: *The gifted group at mid-life: thirty-five years' follow-up of the superior child.* Stanford, Calif.: Stanford, 1959.

118. Thompson, W. R., and J. E. Grusee: Studies of early experience. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 565–654.

119. Tuddenham, R. D.: The constancy of personality ratings over two decades. *Genet. Psychol. Monogr.,* 1959, **60,** 3–29.

120. Vincent, E. L., and P. C. Martin: *Human psychological development.* New York: Ronald, 1961.

121. Watson, J. B.: *Behaviorism.* New York: People's Institute, 1925.

122. Welins, E. G.: Some effects of premature parental responsibility on the older sibling. *Smith Coll. Stud. soc. Wk,* 1964, **35,** 26–40.

123. Werboff, J.: Research related to the origins of behavior. *Merrill-Palmer Quart.,* 1963, **9,** 115–122.

124. Werner, E. E., M. P. Honzik, and R. S. Smith: Prediction of intelligence and achievement at ten years from twenty months pediatric and psychologic examinations. *Child Develpm.,* 1968, **39,** 1063–1075.

125. Westman, J. C., D. L. Rice, and E. Bermann: Nursery school behavior and later school adjustment. *Amer. J. Orthopsychiat.,* 1967, **37,** 725–731.

126. White, S. H.: The learning-maturation controversy: Hall to Hull. *Merrill-Palmer Quart.,* 1968, **14,** 187–196.

127. White, S. H.: The learning theory tradition and child psychology. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 657–701.

128. Willerman, L., S. H. Broman, and M. Fiedler: Infant development, preschool IQ and social class. *Child Develpm.,* 1970, **41,** 69–77.

129. Yarrow, L. J.: Maternal deprivation: Toward an empirical and conceptual re-evaluation. *Psychol. Bull.,* 1961, **58,** 459–490.

130. Zaccaria, J. S.: Developmental tasks: Implications for the goals of guidance. *Personnel Guid. J.,* 1965, **44,** 372–375.

131. Zax, M., E. L. Cowen, J. Rappaport, D. R. Beach, and J. D. Laird: Follow-up study of children identified early as emotionally disturbed. *J. consult. clin. Psychol.,* 1968, **32,** 369–374.

GEORGE RODGER—MAGNUM

CHAPTER FOUR Foundations of the Developmental Pattern

EARLY INTEREST in prenatal development centered around the origin of life rather than on the development of the unborn child. In ancient times, there was a great deal of speculation about how a new human being comes into existence.

Primitive peoples did not associate sexual intercourse with the birth of the child, and many theories of a mystical sort grew up to explain birth. Greek philosophers, on the other hand, knew that sexual intercourse *always preceded* the birth of a baby. With this knowledge, they evolved the theory that the woman was the receptive soil in which the seed from the male was planted.

It was not until the seventeenth century that the woman's contribution to fertilization was recognized. During that era, de Graaf, a Dutch physician, suggested that the woman supplied an egg. A few years later, a Dutch spectaclemaker, van Leeuwenhoek, reported that "little animals," or what are now known as *sperm cells,* were found in the male semen. These, he contended, were the male contribution to the new human being.

Present-day Interest in Prenatal Development

Early scientific interest was concentrated on the hereditary endowment of the baby: *How* does he inherit his potentials from his parents and other ancestors, and *what* does he inherit from them? These questions have not yet been answered to the satisfaction of all scientists. Figure 4–1 illustrates one of the theories that grew up to answer them.

Many superstitious beliefs try to explain the effect of the mother's *experiences* on the unborn child. Medical science has turned its attention to the conditions in the prenatal environment that influence development. In general, medical studies show that the prenatal environment is as important as the postnatal. Furthermore, scientists are finding that the pattern of the child's postnatal development is greatly influenced by his prenatal environment. This point of view has been expressed by Davis and Havighurst. "What happens to the fetus in the womb, and in the process of its birth; the adequacy of its uterine nutrition; its good or ill fortune at birth with regard to infection or injury, all these often prove as important as its heredity" (31).

The latest focal point of scientific interest in prenatal development has been the effects of the attitudes of significant people toward the child during the early years of his life. These attitudes—primarily of parents and siblings—are actually formed before the child is born. Attitudes toward parenthood, toward the sex of of the child, and toward his capacities, for example, often originate in childhood experiences of the parents. Once established, they tend to persist and to influence the parents' treatment of the child. Also, they influence the mother's emotional reactions during pregnancy. These, in turn, affect the chemical content of her bloodstream, thus affecting her unborn child.

How Life Begins

Life begins at the moment of conception—the time when a female reproductive cell, the *ovum* (plural, *ova*), is fertilized by a male reproductive cell, the *spermatozoon* (plural, *spermatozoa*). This is approximately 280 days before birth. The major differences between the male and female reproductive cells are listed in Box 4–1.

Before conception occurs, the ovum and spermato-

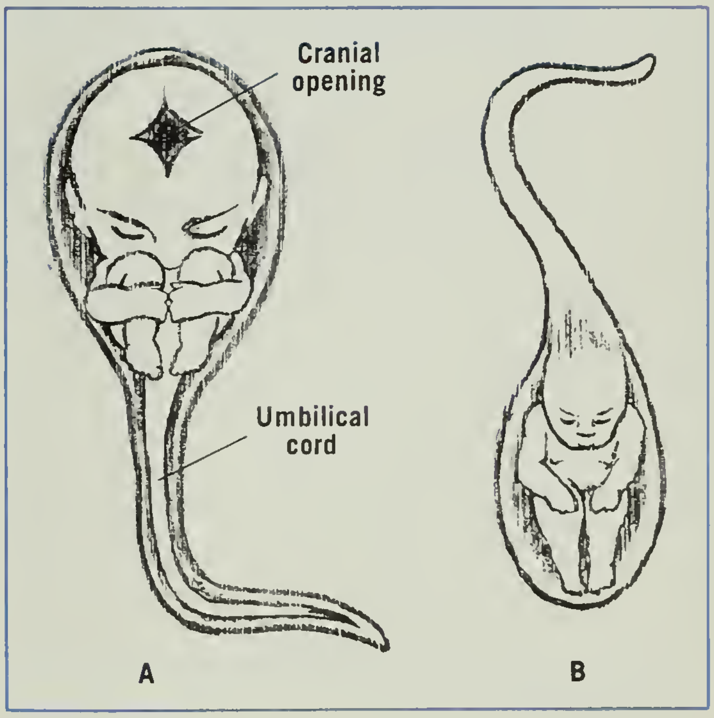


Figure 4–1. The homunculus (or manikin), which early scientists believed was contained in the sperm. After drawings by (a) Hartsoeker, 1694 and (b) Dalempatius, 1699. (Adapted from A. Scheinfeld: The new you and heredity. *Lippincott, 1961. Used by permission.)*

zoon must go through a maturational process. The maturation of the reproductive cells is important in determining what the hereditary endowment of the newly created person will be.

MATURATION OF REPRODUCTIVE CELLS

Maturation consists of chromosome reduction through cell division. Within each sex cell, whether spermatozoon or ovum, there are 23 pairs of *chromosomes* before the maturational process takes place. Chromosomes are threadlike particles within each of which are strings of microscopically small particles, the *genes*. The genes are the physical substances passed on from parent to offspring; they are the carriers of hereditary traits.

Box 4-1

MAJOR DIFFERENCES BETWEEN OVUM AND SPERMATOZOON

Ovum

- Developed in the female gonads—the ovaries.
- One of the largest cells of the body—approximately 0.1 millimeter in diameter.
- Round.
- Contains yolk to nourish new individual after fertilization.
- No means of locomotion within itself; locomotion depends on contractions of surrounding tissues.
- One ripened ovum every menstrual cycle of approximately 28 days.
- Every mature ovum contains 23 matched chromosomes.

Spermatozoon

- Developed in the male gonads—the testes.
- One of the smallest cells of the body—approximately 0.05 millimeter in diameter.
- Elongated, with a fine, hairlike tail.
- Contains no yolk, thus accounting for its small size.
- Moves by lashing tail.
- Several hundred million spermatozoa develop every 4 or 5 days.
- One-half of all mature spermatozoa contain 23 matched chromosomes: the other half contain 22 matched and 1 unmatched.

During the maturational process, the chromosomes of each cell arrange themselves into pairs on opposite sides of the cell's nucleus, with each pair containing one chromosome from the mother and one from the father. When the pairs separate, one chromosome goes to one of the newly formed cells, and its mate goes to the other. The two cells thus formed split again, but this time lengthwise, so that one-half of the original number of chromosomes is retained.

This means that after the maturational process has been completed, there are four mature cells of each sex; each mature sex cell contains 23 chromosomes. In the case of the sperm cells, each one of the four mature cells that came from the original cell is capable of fertilizing an ovum. In the ovum, on the other hand, only one—the part that retains most of the yolk—is capable of being fertilized; the other three cells, the *polar bodies,* are absorbed and secreted.

FERTILIZATION

In normal fertilization, the ovum is in one of the Fallopian tubes, on its way from the ovary to the uterus. As a result of coitus, spermatozoa in large numbers are deposited from the male at the mouth of the uterus and make their way toward the Fallopian tubes. They are attracted to the ovum by a strong hormonal force which draws them into the tube. After one sperm cell enters the ovum, the surface of the ovum is so changed that no other sperm can enter it. Thus fertilization is completed when union with one sperm has occurred. When the sperm cell penetrates the wall of the ovum, the nuclei from the two cells approach each other. There is a breakdown in the membrane surrounding each, and the two nuclei merge. The new cell thus formed has 23 pairs of chromosomes, one-half of which have come from the male and one-half from the female cell.

From his two parents, the child receives a *new* combination of parental genes. This combination is made up of the genes the parents themselves received from their parents, and they, in turn, from their parents. Some of the chromosomes which the child receives from each parent may come from either or both grandparents on that parent's side of the family. As a result, a child may have many traits in common with one or both of his parents; he may also resemble one of his grandparents or great-grandparents.

ROLE PLAYED BY CHANCE

Since there is no specific scientific knowledge of how the pairs of chromosomes of either the ovum or the spermatozoon divide during the maturational process, it is assumed that division is largely a matter of chance. In one cell, for example, after division has occurred, there may be 20 chromosomes from the female and 3 from the male, or 8 from the female and 15 from the male, or any other combination. For that reason, when one cell combines with another in fertilization it is possible and probable that more traits will be inherited from one side of the family than from the other. This explains the "skipping of a generation" in a given trait.

It has been estimated that there are 16,777,216 possible arrangements of chromosome combination (106). Under such conditions, it is understandable why children of the same family are often so different. Only in the case of identical twins do children of the same family have the same genetic makeup. Since the combination of chromosomes is a matter of chance, one cannot predict with any degree of accuracy what the physical and mental characteristics of an unborn child will be.

IMPORTANCE OF FERTILIZATION

The moment of fertilization is one of the most important times in a person's life. Three things are determined at that moment: the person's hereditary endowment, his sex, and whether he will be a singleton or one of multiple births. Because of their importance to the person's developmental pattern, both directly and indirectly, each will be discussed in detail.

Hereditary Endowment

When the sperm unites with the ovum, everything the newly conceived individual will ever inherit from his parents, grandparents, and other more remote ancestors is set. As Kuhlen and Thompson have stressed, "Every individual's supply of genes, the bearers of hereditary factors, is given him once for all and inalterably at conception" (73).

There are between 40,000 and 60,000 genes in the chromosomes in the mature male cell and a similar number in a mature ovum. This means that the newly created baby's hereditary endowment contains between 80,000 and 120,000 genes, each of which carries potentials for physical and mental traits (106). The transmission of genetic inheritance is illustrated in Figure 4–2.

Because every adult produces many more germ cells than will ever be used, because each of these cells contains genes from both parents in varying numbers, and because members of each pair of chromosomes may "cross over" or exchange with each other during the maturational process, chance plays an important role in the hereditary endowment of a child. Chance determines which of a vast number of possible combinations of characteristics he will inherit. As is true of chromosome combinations from parents, it is entirely a matter of chance how many chromosomes from different ancestors on the maternal or paternal side will be passed down to a child. To produce a given kind of person, a particular ovum must unite with a particular sperm. It has been estimated that the probability that this particular union will occur is but 1 in 300,000,000,000,000 (106).

After conception, nothing can be done to add to, or subtract from, the individual's hereditary endowment. The traditional belief that a mother can endow her unborn child with musical talent if she spends the months of her pregnancy concentrating on music or that she can make him brilliant by devoting her time to intellectual pursuits simply is not true.

If, on the other hand, she establishes a favorable prenatal environment for him through good physical health and healthy attitudes, the chances of a favorable development of the genes her unborn child *already has* will be greatly increased. As Montagu has pointed out, "Where we control the environment, we to some extent control heredity. Heredity, it has been said, determines what we *can* do, and environment what we *do* do" (84).

DEVELOPMENT OF HEREDITARY POTENTIALS

Some inherited characteristics, such as eye color and hair texture, are relatively immune to environmental influences. Most inherited characteristics, however, are markedly influenced by environment. A growing child may have his height potentials stunted if he is deprived of adequate nutrition and sunlight, if he is forced to do work too heavy for his undeveloped body, or if he suffers from a long, wasting illness. In speaking of intellectual potentials, Stone and Church have stated, "A potential genius may find inspiration for immense achievement, but if not given proper stimulation he may end up in intellectual mediocrity" (118).

If environment is to stimulate hereditary potentials, it must be of the right kind at the time when development normally occurs. As Montagu (84) has said:

> *Genes do not work their effect in a vacuum. . . . The limits of what we can do are determined by the genes, but it is the environment that determines the extent to which the potentialities within these limits are realized. We do not, therefore, stand helpless and impotent before the implacable fate which heredity is misconceived to be. On the other hand, through the intelligent management of the environment there is a great deal we can do about it.*

INDIRECT EFFECTS OF HEREDITARY ENDOWMENT

Failure to recognize the limits set by heredity causes far too many parents and other adults to try to mold the child into a pattern. They believe that they can produce in him the traits they want him to have if they give him an opportunity to develop them. Often these are traits which the adults themselves do not possess and whose lack they believe has been a handicap. A father who is short and wants his son to be tall, for example, may bribe and coax the child to eat what he believes to be "growth food"; he may insist upon the child's exercising to "stretch" his body; and he may promise his son that if he will just follow advice and do his share, he will grow into a tall man.

Studies of parent-child relationships have revealed that children tend to resemble their parents, both physically and mentally, more than they differ from them. The resemblance increases as children grow older (10, 106). Parents often interpret this growing resemblance to mean that their children failed to take advantage of the opportunities they provided. In time, this affects the parent-child relationship adversely. Of even greater harm are parental expectations that go beyond a child's capacity. The child is discouraged when he finds himself unable to measure up, and this often stifles his motivation to achieve what he is actually capable of.

Sex Determination

The second important determination that is made at the moment of fertilization is whether the child will be male or female. For centuries people have tried to predict and control the sex of unborn children. How accurate are the predictions, and how much control can parents exert?

PREDICTION OF SEX

Parker (95) gives a good description of man's traditional concern over the sex of unborn children:

> *Prediction of the sex of the unborn has always been an intriguing problem to prospective parents, and their ingenuity in finding a solution has been limited only by the extent of their imagination. Primitive people, living close to nature, sought their answer in the elements and came up with many solutions. Babies conceived in the full of the moon reflect the majestic splendor of that august body and therefore would be males. A waning moon could do no better than produce a girl. When man moved indoors, the elements became less important, and early folklore transferred the responsibility to the parents themselves. If the mother most wanted the baby, it would be a girl, but if it was the father who was most eager for an offspring, it would be a boy. . . . If the mother "carries" the baby low it will be a boy. Or, the baby that starts moving early and kicks vigorously will be a boy.*

More scientific techniques for predicting the child's sex include the *heartbeat test,* which maintains that a male fetus has a slower heartbeat than a female; the *smear test* to determine the amount of the estrogenic and androgenic hormones present; the *saliva test* to see if the mother's saliva contains a chemical substance associated with a masculine fetus; and the *amniotic fluid test* to determine what cells are found in the unborn fetus (84, 106, 119). To date, no test with 100 percent accuracy has been devised.

CONTROL OF SEX

Countless theories have been advanced about how the sex of the unborn child can be controlled. Among some peoples, pregnant women wear charms, drink magic potions, and make offerings to their gods to ensure that the unborn child will be male. An early superstition was that if a man went to bed on his wedding night wearing his boots, a boy would be conceived. Some theories stressed that fertilization just after menstruation would result in a female offspring. Others claimed that the food eaten by the mother during pregnancy would determine the sex of the child. A girl could be produced, it was believed, if the mother ate large amounts of sugar. The month of conception was likewise supposed to determine sex. There was also the belief that if a pregnant woman drank certain potions regularly, she could influence her child's sex. To produce a boy, the potion had to be alkaline; to produce a girl, it had to be acid (41, 106, 116).

Scientific investigations have disproved the old theories about how the child's sex can be controlled and have, at last, produced some accurate data. Discovery of the sex chromosomes has shown that the factors that actually determine sex are internal and that the sex of the child is fixed at the time of fertilization. Of the chromosomes provided by the mature spermatozoon, one differs in character and structure from the others. This is true also of the chromosomes provided by the mature ovum. These different chromosomes are the *sex chromosomes.* They are of two kinds: The larger is the X chromosome, and the smaller—about one-third the size of the X chromosome—is the Y chromosome. One-half of all mature spermatozoa carry the X chromosome, and the other half carry the Y. By contrast, all mature ova carry the X chromosome.

Thus, in any fertilized ovum, there is always an X chromosome from the ovum and either an X or a Y chromosome from the spermatozoon. If the spermatozoon that unites with the ovum is of the Y-bearing type, the result will be an XY sex chromosome combination; this always results in a male offspring. Should an X-bearing spermatozoon unite with the ovum, the result will be an XX sex chromosome combination; this always produces a female offspring. Figure 4–3 shows how male and female offspring are determined. No one can tell ahead of time whether the ovum will be fertilized by a spermatozoon bearing an X or a Y sex chromosome, and no one can influence the combination in any way. *Sex determination, therefore, is a matter of chance.*

SEX RATIO

According to the law of chance, approximately equal numbers of children of each sex would be conceived. As a matter of fact, between 120 and 150 males are conceived for every 100 females. The reason for this difference is unknown, although a number of sug-

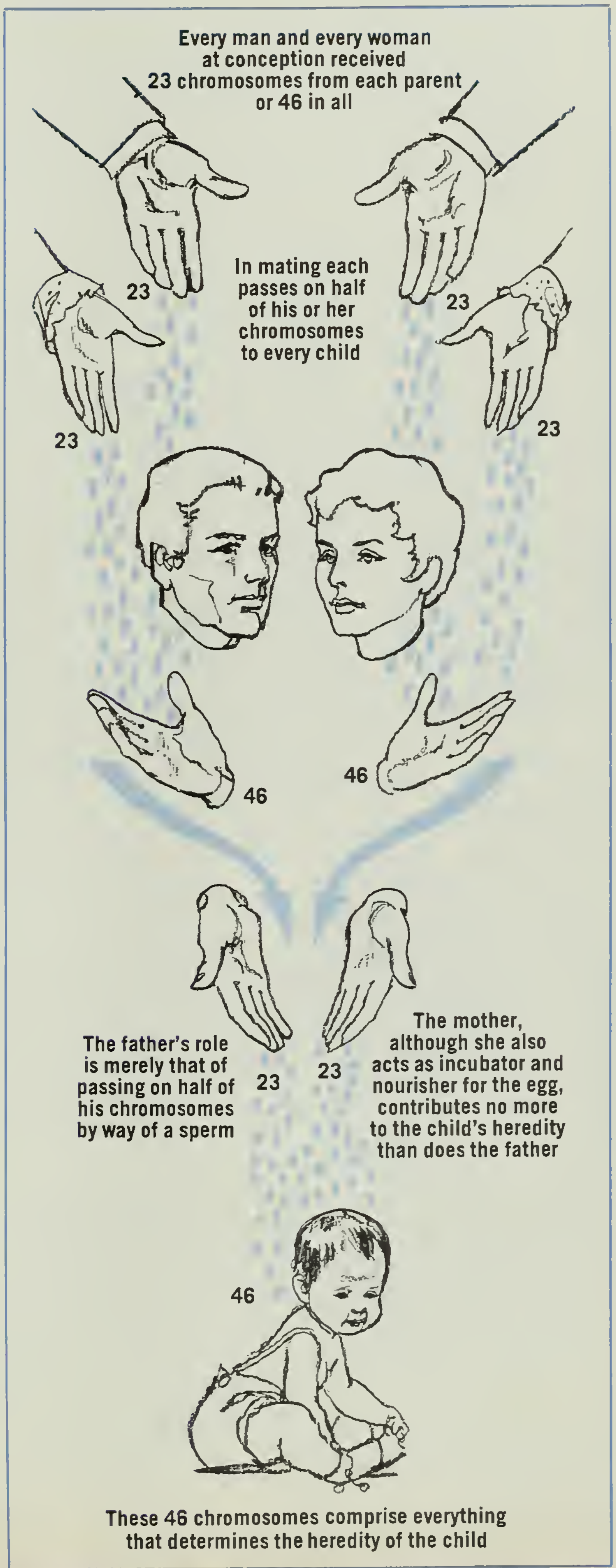

Every man and every woman at conception received 23 chromosomes from each parent or 46 in all
In mating each passes on half of his or her chromosomes to every child
23
23
23
23
46
46
The father's role is merely that of passing on half of his chromosomes by way of a sperm
23
23
The mother, although she also acts as incubator and nourisher for the egg, contributes no more to the child's heredity than does the father
46
These 46 chromosomes comprise everything that determines the heredity of the child

Figure 4–2. The hereditary process. (Adapted from A. Scheinfeld: The new you and heredity. *Lippincott, 1961. Used by permission.)*

gestions have been advanced to explain it. Of these, the most credible though still unproven possibility is that since the spermatozoon bearing the Y sex chromosome (the one that produces the male offspring) is slightly lighter and hence swifter in movement than the spermatozoon bearing the X sex chromosome (the type that produces a female offspring), the Y-bearing type has a better chance of reaching the ovum sooner and fertilizing it.

Another reason for this difference in sex ratio has been suggested by Scheinfeld: that a "canny Nature starts the sexes off with a surplus of males to partly provide for the greater drain upon their number later" (106). It has been reported that during the prenatal period, 50 percent more male fetuses die than female. Approximately 106 male babies are born for every 100 female. This means that of the males conceived, between 15 and 45 die before birth, as compared with a relatively smaller number of females (84, 106).

During the first four weeks of postnatal life, 40 percent more male babies die than female, while among the prematurely born, 50 percent more males than females die. In the first year of life, 33 percent more male babies die than female; between 5 and 9 years of age, 44 percent more boys than girls; between 10 and 14 years, 70 percent more boys than girls; and between 15 and 19 years, 145 percent more boys than girls (106). The result is that by the time a male child reaches adulthood, his sex is literally the "minority" sex. In commenting on this, Montagu (84) has said:

> *Whatever the physical reasons may be which result in more eggs being fertilized by Y-bearing spermatozoa the evolutionary "reason" would appear to be that since the male is the constitutionally weaker organism he must be conceived in greater numbers than the female if a relatively harmonious numerical balance is to be achieved between the sexes during the reproductive life of the female.*

Traditional Beliefs about Sex Ratio. According to tradition, more boys are born in wartime than the normal 106 boys for every 100 girls. There is no evidence to support this belief (86). Neither has the traditional belief that young fathers produce more male offspring than older fathers stood up under scientific study. Evidence seems to indicate that there is no relationship whatever between the sex of the offspring and the age of *either* the mother or the father (12). There is, on the other hand, some evidence that men who tend toward stockiness produce more sons, while men who tend toward leanness are more likely to have daughters (29).

Another tradition is that boys (or girls) run in some families. Studies of sex distribution in families have shown that there is an excess of unisexual sibship in two-child and three-child families (13, 86, 116).

Some evidence shows that in the upper socioeconomic groups, there is a sex ratio of 120 to 125 males born for every 100 females. The groups studied have been too small, however, to warrant much confidence in the results (13). While some reports indicate that men in "masculine" occupations have a higher percentage of male offspring than men in "feminine" occupations, the evidence is inconclusive (44, 84).

EFFECTS OF SEX ON DEVELOPMENT

The child's sex affects his development both directly and indirectly. The direct effects occur both before and after birth, while the indirect effects occur only after birth.

Direct Effects. Throughout the childhood years, the sex organs of boys and girls produce sex hormones in small quantities. These sex hormones differ in quantity but not in type. Both sexes produce *androgen,* the male hormone, and *estrogen,* the female hormone. Males produce more androgen, and females more estrogen. It is the predominance of the sex hormone appropriate for their sex that is responsible for the differences in physical and psychological development of boys and girls. If this balance is upset, variations result. Boys who are castrated, for example, become "feminine" in appearance and behavior, while girls whose ovaries are removed because of a diseased condition become "masculine" (23, 27, 95, 106).

Indirect Effects. From the time the child is born, strong cultural pressures are put on him to conform to the culturally approved pattern for his sex. Even in babyhood, he is dressed like other members of his sex and is expected to act like them. Throughout childhood, both boys and girls are molded—first by the family, later by the school and peer group, and still later by the community group—into a pattern the group considers appropriate for the child's sex.

In the molding process, children are denied opportunities to learn sexually inappropriate patterns of behavior. Little boys, for example, are discouraged from playing with dolls and other "girls' toys," while girls are given few opportunities to learn to play the typically "masculine" games of baseball and football. Should the child prefer the role of members of the opposite sex, he is likely to be rejected not only by children of his own sex but also by members of the opposite sex, whose behavior he imitates. At no age is a sex-inappropriate person admired or accepted by the group.

Perhaps the most important influence comes from the attitudes and treatment of significant people—parents, siblings, and teachers. Their attitudes, in turn, affect their treatment of the child. If the child is of the desired sex, for example, parents tend to show their satisfaction by being indulgent. If he is not of the desired sex, many parents feel guilty and try to compensate by being overindulgent. Others show their disappointment by favoring a sibling of the desired sex. Still others try to mold the child into a pattern appropriate for a child of the sex they wanted (53, 102).

Number of Offspring

Whether the birth will be single or multiple is the third important determination that is made at the time of conception. The term "multiple birth" refers to the birth of two or more babies within a few hours or days; twins, triplets, quadruplets, and quintuplets all belong in this category. A *singleton* is a child who is born alone. He may have siblings—brothers and sisters—but a period of 9 months or more separates their births from his. Box 4–2 shows the estimated frequencies of multiple births of different categories (84).

Multiple births have been reported to occur more often among blacks than among whites and more often among whites than among members of the yellow race (84, 106). Maternal age has no effect on multiple births coming from the division of one egg. Up to the age of 38 years, however, women show a definite tendency to have twins from two eggs, after which age there is a rapid decline in the tendency (84). The probability of later multiple maternity is ten times greater for a woman who has produced children of multiple birth than for a woman who has not. Contrary to popular belief, there is no evidence that twins run in families, nor is there any evidence of weather or seasonal effects on multiple birth (84, 86, 106).

SOCIAL ATTITUDES TOWARD MULTIPLE BIRTHS

Among some peoples, twins are regarded as a good omen: they are given special honors and privileges. Among others, multiple births are regarded as such bad omens that the babies are destroyed at birth. Traditionally, most tribes in the Congo considered

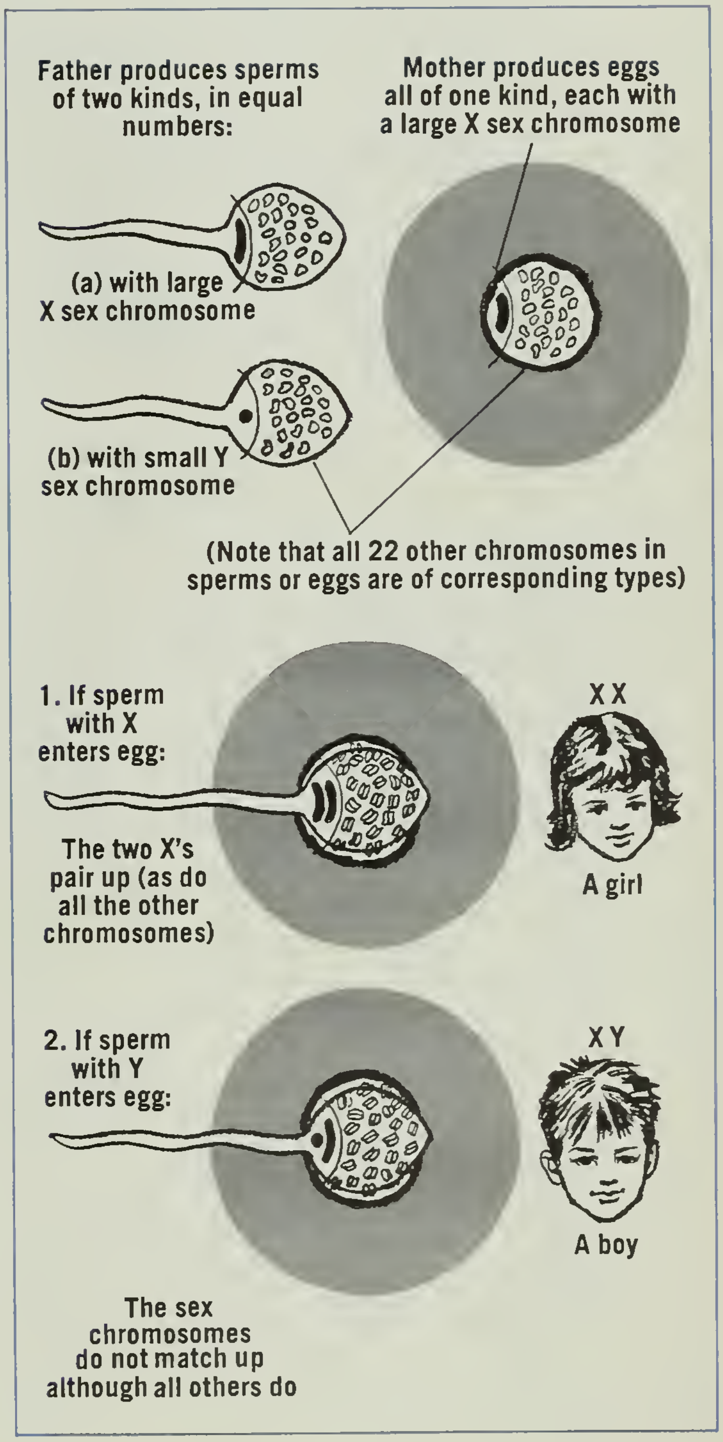


Figure 4–3. How sex is determined. (Adapted from A. Scheinfeld: The new you and heredity. *Lippincott, 1961. Used by permission.)*

Father produces sperms of two kinds, in equal numbers:
Mother produces eggs all of one kind, each with a large X sex chromosome
(a) with large X sex chromosome
(b) with small Y sex chromosome
(Note that all 22 other chromosomes in sperms or eggs are of corresponding types)
1. If sperm with X enters egg:
The two X's pair up (as do all the other chromosomes)
X X
A girl
2. If sperm with Y enters egg:
X Y
A boy
The sex chromosomes do not match up although all others do

twins the innocent victims of a wicked mother. The children were not harmed or scorned, but the village witch doctor put a curse on the unfortunate mother and ordered her to advertise her "crime" by smearing her face with ashes whenever she appeared in public. In Kenya, mothers traditionally considered it detrimental to their health to feed two infants at one time. As a result, one was allowed to die of starvation. In the case of mixed twins, the girl was generally spared because she would bring a "bride price" when she was old enough to marry (87, 88). According to an American Indian saying, "Papoose double make heap trouble" (107).

Even today some peoples regard multiple births as "animallike," while others believe that twins and other multiply born children have special hereditary endowments. Still others consider them "scientific curiosities" (88, 106, 107). In cultures where boys are held in higher esteem than girls, the boy is generally given the advantage of survival—if a choice must be made—in the case of mixed twins. Because girls are regarded as inferior to boys in some Moslem countries, a twin boy has a better chance of survival than his twin sister.

SCIENTIFIC INVESTIGATIONS OF MULTIPLE BIRTHS

Scientific investigations to determine the effect of multiple birth on child development have been numerous in the case of twins but few for those of larger number. This is not because of lack of interest in triplets, quadruplets, or quintuplets but rather because they are far less frequent; often one or more will die at birth or shortly afterward, and as a result, their postnatal environment is similar to that of twins.

Twins. There are two distinctly different types of twins. *Identical*, or uniovular, twins come from a single ovum fertilized by a single sperm; *nonidentical*—biovular, or fraternal—twins are the product of two ova fertilized simultaneously. It is estimated that one-fourth of all twins are of the one-egg type. Figure 4–4 shows how the two types of twins develop.

Box 4–2

ESTIMATED FREQUENCIES OF MULTIPLE BIRTHS

- Twins: 1 out of 87 births
- Triplets: 1 out of 7,569 births
- Quadruplets: 1 out of 658,507 births
- Quintuplets: 1 out of 57, 289,761 births
- Sextuplets: 1 out of 4,984,209,207 births

Identical Twins. When one ovum is fertilized by one spermatozoon, it occasionally happens that, at the time of the first division of the cell, the new cells separate instead of remaining together. Why this separation occurs, no one knows for certain, but there is some evidence that it is the result of hormonal disturbances. There is also the belief—as yet unproved—that the egg has an inherent tendency to divide. Whatever its cause, if a separation occurs before the reduction division, during the maturational process, two separate eggs will result. Twins formed from such divided eggs are called "identical"; they have exactly the same assortment of genes.

Because of their identical hereditary endowment, identical twins resemble each other very closely in all their hereditary traits. They have the closest degree of kinship possible for two distinctly separated individuals and they are always of the same sex.

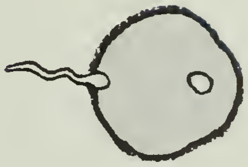
When the division of the fertilized ovum is incomplete, the result is *siamese twins*. They are always of the same sex and, like other identical twins, closely alike in physical and mental traits. Whether they can be separated depends upon where the joining of their bodies occurs.

Nonidentical Twins. Occasionally, two ova develop simultaneously and are fertilized at the same time. The individuals who develop from these two ova are nonidentical—often called fraternal—twins. The name "nonidentical" suggests lack of similarity in the physical and mental makeup of the twins. When the chromosomes of the two ova divide, the grouping is not likely to be the same for both. One ovum may receive a preponderance of chromosomes from the maternal grandfather, and the other from the maternal grandmother. In addition, the ova are fertilized by individual spermatozoa, each with its own assortment of chromosomes. Nonidentical twins may be of the same sex or of opposite sexes. Nonidentical twins are not really twins; rather, they are the result of simultaneous pregnancies.

Figure 4–4. The two types of twins. (Adapted from A. Scheinfeld: The new you and heredity. *Lippincott, 1961. Used by permission.)*

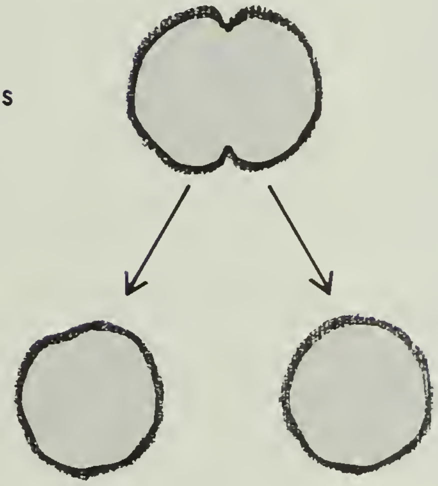
Identical twins
are products of

a single sperm and a single egg

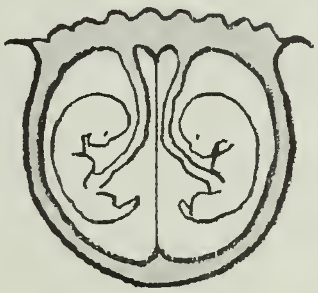


In an early stage
the embryo divides

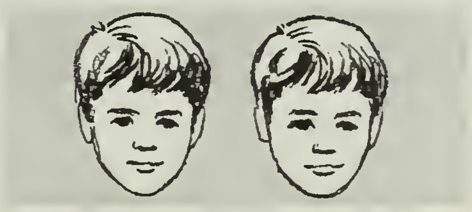
The halves go
on to become
separate
individuals



Usually—but not always—identical
twins share the same placenta and
fetal sac

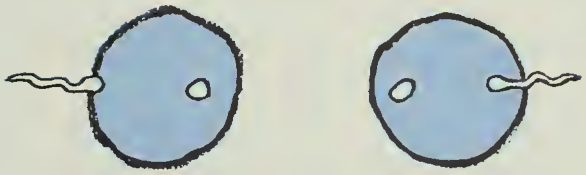


But regardless of how they develop
they carry the same genes and are
therefore

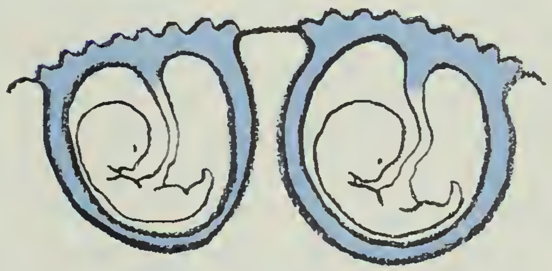


Always of the same sex—two boys
or two girls

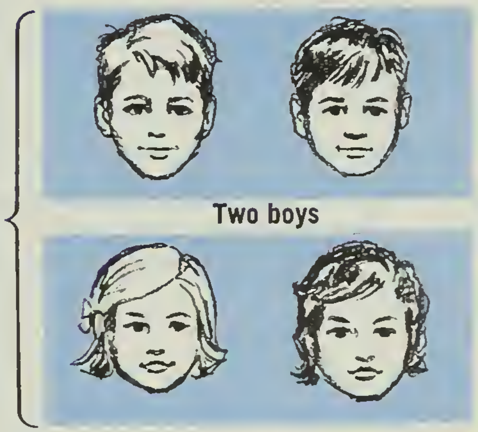
Fraternal twins
are products of two different eggs
fertilized by two different sperms



They have different genes and may
develop in different ways, usually—
but not always—having separate
placentas and separate fetal sacs



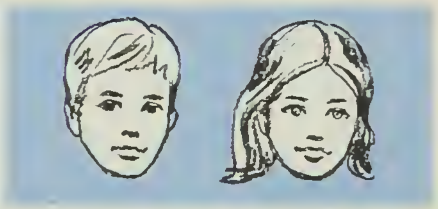
Also, as they are totally different
individuals, they may be



Both
of the
same
sex

Two boys

—or two girls



—Or a
mixed pair

One boy

One girl

Characteristics of Twins. Many studies have been made of twins to determine how similar they are in physical and mental makeup, how they differ from ordinary siblings, and how long their similarities persist. In general, these studies reveal that twins are more likely than singletons to miscarry, to be born ahead of schedule, to suffer from birth injuries, or to be stillborn (71, 92, 107).

In *physical characteristics,* identical twins are much more alike than nonidentical twins, who often show no greater resemblance to one another than ordinary siblings (5, 71, 92, 107). Even in senescence, and in spite of marked differences in environment over a long period, identical twins show a similarity in graying and thinning of the hair, senile wrinkle formation, and teeth deficiencies (65).

Mental similarities, as revealed by intelligence tests and educational achievement, are much more striking in identical than in nonidentical twins. Mental similarities in identical twins have been reported to persist beyond the age of sixty years (65, 71, 125, 128). In *special abilities,* such as musical or athletic ability, similarities between identical twins are great; in *mechanical ability,* where environmental influences are strong, similarities are less pronounced (129). In all aspects of *language ability,* twins in their early years are markedly retarded as compared with singletons. This retardation is not due so much to intellectual differences as to the fact that twins develop a private language of their own which is often unintelligible even to members of their family (129).

The effects of twinship on *social development* have been studied intensively. As identical twins spend more time together, have more interests in common, and are more self-sufficient as far as outside companionship is concerned than nonidentical twins or regular siblings, it is not surprising that they enjoy similar reputations among their peers and show a marked similarity in social competence as measured by scales of social maturity. Even during the preschool years, twins are competitive for attention. They copy each other and show similar feelings toward others (57, 71, 104, 128, 129). While it is true that they interact with others increasingly as they grow older, they have fewer social interactions than singletons during the preschool years (69).

The closeness and mutual dependence of twins affects their *personality development.* It is difficult for identical twins especially to make a distinction between themselves as twins and as individuals. This does not help to develop individual personalities. Rivalries and antagonisms, however, leave their mark, and one twin is likely to become dominant. The dominant twin will develop a personality pattern that differs from that of the dominated twin (22, 57, 69, 83, 104, 113, 128).

Triplets. Triplets may be of three types: (*1*) identical, in that all three have come from the same fertilized ovum; (*2*) two identical and one sibling; and (*3*) three siblings, each having come from a separate fertilized ovum. A few sets of triplets have been studied extensively to determine what their physical and mental characteristics are.

Physically, there is a lag in tempo of development as compared with twins and singletons. The eruption of the first tooth, for example, comes a month later than for twins. In *developmental traits,* such as sitting alone, standing alone, and walking, there is a lag. Triplets are also slower in saying their *first words* and in *forming sentences* (62, 107).

Mental development, as measured by intelligence tests, likewise shows a lag. Among older triplets, however, the lag is less pronounced, suggesting that it may affect only the early development. Tests of *emotional* and *personality development* have indicated that triplets behave socially and temperamentally like singleborn children of the same age and have interests and attitudes normal for their sex (54, 62, 75, 107).

Quadruplets. Studies of quadruplets are exceedingly limited. A study of one set of 12-year-old quadruplets showed them to be emotionally immature, dependent on adults, and unable to conform to social expectations. They also had difficulty in thinking independently and tended to project the blame for their acts on others. In this set of quadruplets, two of whom were boys and two girls, one of the boys assumed the leadership role. Some of their retardation in social and emotional behavior may have been due to the fact that they came from a poor home setting marked by divorce and spent some of their time in foster homes (110).

Quintuplets. One of the most authoritative reports of the famous Dionne quintuplets is that of Blatz. According to Blatz, the quintuplets did not begin to walk until they were about 15 months old. They used gesture language, as is true of twins, and did not catch up to single children until about the fifth year. At the age of 3 years, they had a vocabulary of 110 words, which is retarded for singletons of that age. Intelligence tests were given only until the quintuplets were about 3½ years old. These tests showed them to be backward as compared with norms for single children. (15).

DEVELOPMENTAL DIFFERENCES OF SINGLETONS AND MULTIPLE BIRTHS

Whether the child is a singleton or one of multiple birth will have a marked influence on his development both before and after birth. Identical children of multiple birth have similar physical and mental potentials. Consequently, it is inevitable that they will have less individuality—even if they have markedly different postnatal environments—than children of nonidentical multiple births or singletons. These differences are traceable to three important influences: the prenatal environment, the postnatal environment, and parental attitudes.

Prenatal Environment. The prenatal environment of children of multiple birth differs in important respects from that of singletons. Children of multiple birth are usually crowded into a space nature intended for only one. As a result, one child in the set may be in a less favorable position than the others. The significance of this crowding will be discussed in the section on fetal activity. Children of multiple birth are often born prematurely because the uterus is incapable of further expansion as the fetuses grow larger. This is not always true, of course, but physical or psychological handicaps are more common among children of multiple birth than among singletons (71, 84, 106, 119).

Postnatal Environment. The postnatal environment of children of multiple birth is also quite different from that of singletons. Children of multiple birth must share parental time and attention. If one child is weaker, he is likely to get the lion's share; thus, his sibling may feel that the parents are playing favorites. In addition, the weaker child is likely to develop a "follower" personality pattern, while the stronger learns to play the role of leader. Furthermore, sibling rivalries and competition, animosities, and resentments are heightened if a child feels that his parents are showing favoritism. The weaker child may develop feelings of inadequacy and martyrdom. The stronger child may feel that his parents discriminate against him. In spite of such unfavorable sibling relationships, affectional relationships become stronger as children of multiple birth grow older, as is true also of singletons (69).

Because tradition holds that children who shared the same prenatal environment should share the same postnatal environment, children of multiple birth are thrown together constantly. They are expected to play together, share the same toys and friends, and dress alike, whether or not they are of the same sex. In commenting on the effects of similar treatment for twins, Barclay (9) has written:

> *Nothing is cuter than a pair of pretty—and identical —youngsters, identically dressed, answering to names like Pammy and Patty, playing together in idyllic peace, each one's welfare the other's prime thought. What this discloses of possible overdependence and overidentification, however, may take some of the "cuteness" out of the picture. Although nobody condemns all dress-alike, play-alike occasions, many a twin exposed to nothing else from birth has had extreme difficulty later on recognizing himself, within himself, as a separate entity. It becomes almost impossible in such a situation for either to stand alone.*

Influence of Parental Attitudes. Parental attitudes toward multiple births, reflected in parental behavior, *indirectly* affect the children's development. Multiple births are seldom regarded as a disgrace today; they are, in fact, often a source of pride. Many parents, however, find that they mean heavy expense and greatly increased work loads. If the babies are born prematurely, there will be larger hospital bills than the family budget had allowed for. The extra work needed to care for two or three infants simultaneously and the difficulties in interpersonal relationships among children of the same age during the early years affect many parents unfavorably. This is certain to be reflected in parent-child relationships, as may be seen in Figure 4–5. Having to cope with all these problems often makes the mother feel "victimized" (94, 99). How victimized a mother of young twins may feel is expressed in the following jingle by an anonymous writer (107):

The Joy (?) of Twins

Drudgery that's double or more
Laundering till your hands are sore;
Tangle of lines with soggy things drying,
Day and night chorus of yelling and crying,
Endless chores and no end of expenses,
Worries that drive you out of your senses,
Everyone bothering you with questions,
Everyone giving you crazy suggestions,

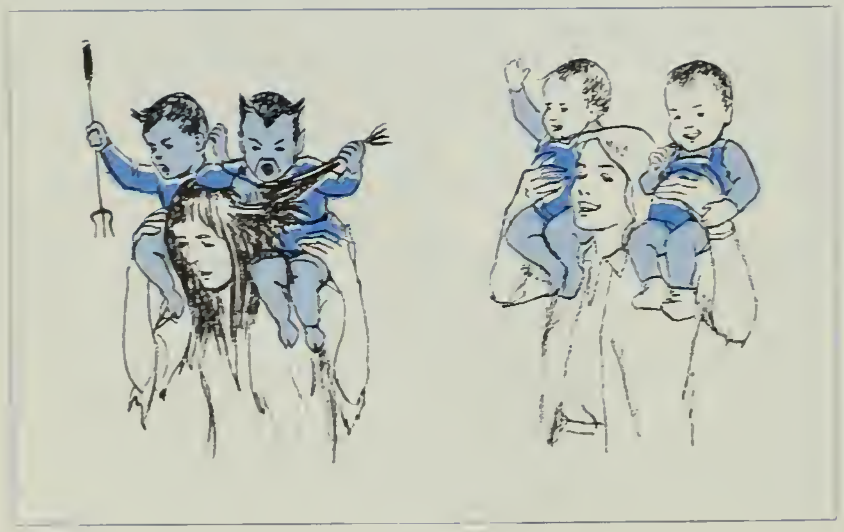
Husband complaining you're no kind of wife,
Everything mixed up in your life.
If I knew whom to blame for twins, I'd sue 'em.
Those who want twins are welcome to 'em.

One of the most common and difficult problems parents of children of multiple birth must face is their children's *developmental lag.* Some parents try to force a "backward" child to come up to the standards for his age. Some feel ashamed of such a child and reject him, either directly, by showing little understanding and love, or indirectly, by favoring another child who is more normal. Other parents become overly sympathetic and protective, thus depriving the child of opportunities and motivation to develop his potentials. Whatever form parental reaction to the child's developmental lag may take, it is likely to be reflected in unhealthy relationships with the child and unfavorable treatment of him.

Timetable of Prenatal Development

As soon as an ovum is fertilized by a spermatozoon, development begins. Growth—in the short period of 9 calendar months—from a single cell, microscopically small, to a baby of about two hundred billion cells is phenomenal. Equally phenomenal is the change from a single cell with no power of its own to a child composed of bones, muscles, skin, internal organs, and a nervous system—all ready to function at or even before birth.

Figure 4–5. The twin mother's "load": How being the mother of twins affects the mother's attitude toward her role and her attitude toward the children.
(From the book Twins and Supertwins *by Amram Scheinfeld. Copyright © 1967 by Amram Scheinfeld. Redrawn by permission of the publisher, J. B. Lippincott Company.)*



Studies of animals and human beings show that development follows a pattern, not only in the formation of the different parts of the body but in their functioning as well. At no time is the developing organism a miniature adult in body proportions. Figure 4–6 shows the different body proportions in the early prenatal stages. Because the pattern is orderly and predictable, it is possible to give a "timetable" of the development of structures and functions. Parker (95) has written:

> *To accomplish such a tremendous task in such a short period, nature has a perfect plan—a timetable that specifies just how far along she must be with each minute detail each succeeding day. She is exceedingly proficient in adhering to this. Her timing is perfect, her accomplishments rapid, accurate, and purposefully correlated. We cannot follow her day by day as she accomplishes this but will have to content ourselves with spot checking at regular intervals.*

The prenatal period is divided into 10 *lunar* months of 28 days each. These coincide with the periods of the female menstrual cycle. The 10 lunar months may be marked off into three subdivisions, each characterized by a particular phase of development. These are the *period of the ovum,* the *period of the embryo,* and the *period of the fetus.* Box 4–3 lists the highlights of each of these developmental periods.

HAZARDS IN PRENATAL DEVELOPMENT

Each of the three subdivisions of the prenatal period entails certain hazards for the developing organism. During the *period of the ovum* there is the danger that the ovum, even though fertilized, may die before implantation occurs. If the pattern of reproduction is slowed down by an insufficient amount of hormones from the mother's thyroid and pituitary glands, the fertilized ovum will use up all the yolk available to maintain life before it becomes implanted in the uterine wall and gets a new source of nourishment.

Another source of danger is lack of proper balance between the mother's pituitary gland and her ovaries. This may slow the preparation of the uterine wall to receive the fertilized ovum. If this happens, the ovum cannot implant itself and, as a result, dies of starvation.

For reasons yet unexplained medically, the fertilized ovum may implant itself in an area where it cannot get the nourishment needed for survival. It may attach itself to the wall of the Fallopian tube—a "tubal pregnancy"—where it can neither get nourishment nor have the space needed for growth. If it does not die, it will have to be surgically removed.

The *period of the embyo* is the most hazardous of the three prenatal developmental periods. This is the time when miscarriages due to emotional shock, malnutrition, glandular disturbances, and other causes not yet fully determined dislodge the embryo from its place in the uterine wall. Miscarriages of this kind are known as "spontaneous abortions." If miscarriages are due to a defect in the fertilized ovum, they usually occur early in the prenatal period. If they are due to some unfavorable condition in the prenatal environment, they generally come some time between the tenth and eleventh weeks following conception. More male embryos miscarry than female (47, 77, 84, 106).

The period of the embryo is the time when abortions—the voluntary dislodging of the embryo from the uterine wall—can most safely be performed, whether for personal or medical reasons. If the abortion is delayed, it will be far more likely to endanger the mother's health (47).

Developmental irregularities are more likely to occur at this time than during the period of the fetus. The reason for this will be explained in a later section of the chapter.

Even though the *period of the fetus* is less hazardous than the period of the embryo, it is still not free from hazards. Garn (46) has stated:

> *From the sixth through the ninth months of pregnancy, hazards are fewer and the completion of major stages of development makes the fetus less vulnerable to injury. Yet it is in this period when mental growth may be set back by environmental insults too mild to yield gross anatomical defects. Nutritional deficiencies during later pregnancy may lead to unsound teeth, jaw-face defects, and disturbances of behavior and personality observable in later life.*

During the period of the fetus, there is always the possibility of a miscarriage up to the fifth lunar month. The most vulnerable times are those dates when the woman's menstrual period would normally occur. Voluntary ending of pregnancy by an abortion becomes increasingly difficult and dangerous with each passing week.

Premature birth, with its complications and possibilities of death, is a hazard that many fetuses face, especially those of multiple birth. Even though the hazards decrease with the shortening of the prematurity, they are always present. Postmature birth is likewise hazardous. Prematurity and postmaturity will be discussed in Chapter 5.

Complications of delivery are often the result of

Box 4-3

HIGHLIGHTS OF TIMETABLE FOR PRENATAL DEVELOPMENT

Period of the Ovum

(Conception to End of the Second Week)

- Practically unchanged in size because of lack of outside source of nourishment.
- Rapid internal development.

Implantation in uterine wall about 10 days after fertilization.

- With implantation, the ovum becomes a parasite.

Period of the Embryo

(End of the Second Week to End of the Second Lunar Month)

- All important external and internal features start to develop and function.
- Sex organs well enough developed to distinguish sex of embryo.
- By end of period, embryo measures $1\frac{1}{2}$ to 2 inches in length and weighs about $\frac{2}{3}$ ounce.
- Accessory apparatus—placenta, umbilical cord, and amniotic sac—develop.

Period of the Fetus

(End of Second Lunar Month to Birth)

- External and internal features continue growth and development.
- Growth follows law of developmental direction.
- Internal organs assume nearly adult positions by fifth lunar month.
- Age of viability reached by sixth or seventh month.
- Fetal activity (e. g., kicking, squirming) begins between second and third months.

conditions that existed during the period of the fetus. This is especially true when the mother's anxiety interferes with the endocrine balance of her bloodstream. If maternal anxiety leads to weight gain, this too, adds to the complications of delivery.

While developmental irregularities are less likely to occur during the period of the fetus than during the preceeding period, serious malnutrition, endocrine imbalance, chronic and persistent diseases, and a number of other unfavorable conditions in the prenatal environment are known to take their toll. This subject will be discussed further in the section on developmental irregularities.

Conditions Affecting Prenatal Development

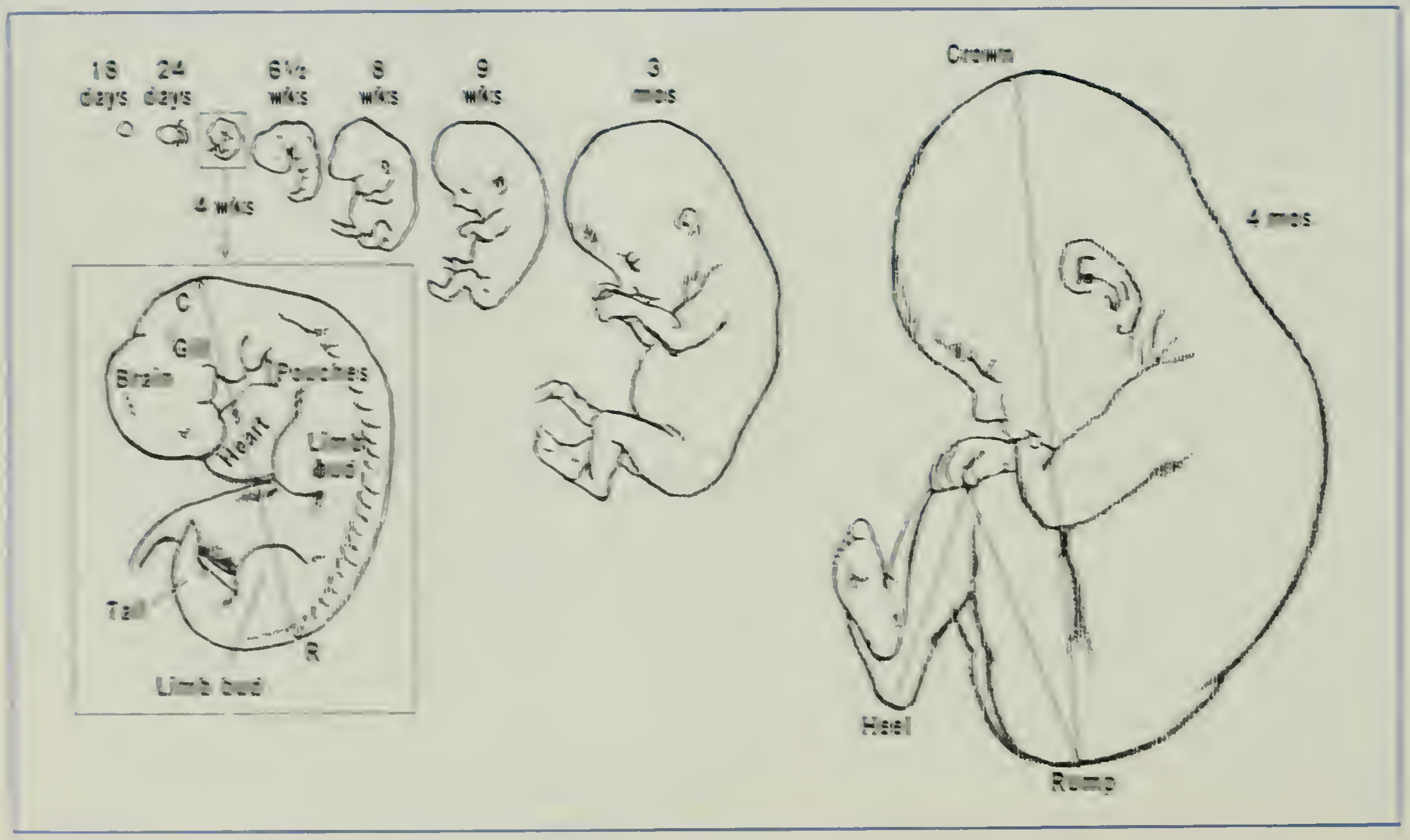
The environment in which the child lives before birth—the mother's uterus—determines whether the fetus will follow nature's timetable. Normally conditions within the uterus are ideal for the development of a healthy child. *Marked* variations may spell trouble. Any injurious agent introduced through the placental bloodstream can disturb the uterine environment. If introduced at a critical time in the developmental timetable, it can temporarily or permanently change the pattern.

Experimental studies of animal and human subjects have positively identified certain conditions in the prenatal environment that affect development. Other conditions are suspected of being influential, but the evidence is as yet inconclusive. These conditions are listed in Box 4–4.

Developmental Irregularities

Traditional explanations for children's deviant development, especially when parents were normal and healthy, have emphasized either heredity or, more commonly, maternal impressions (See Chap. 1).

Figure 4–6. The development of body form during the prenatal period. (Adapted from P. C. Martin and E. L. Vincent: Human development. Ronald, 1960. Used by permission.)



Know

Deformities were believed to be due to a *hereditary* weakness, usually on the mother's side of the family. Old wives' tales claimed that the mother's thoughts, emotions, or cravings could *mark* her unborn child.

Present knowledge of the relationship between the body of the fetus and that of the mother disproves the traditional beliefs about maternal markings. There are two lines of evidence. The *first* is that the same types of abnormalities occur in most of the lower animals, where, because of the low level of development of the nervous system, maternal impressions do not exist. The *second* comes from the fact that there is no direct connection between the mother and the fetus. There is only an indirect connection through the umbilical cord and placenta—where there are no nerves,—only blood vessels—and hence the mental, emotional, or nervous condition of the mother can have no direct effect whatever on the fetus.

Science has revealed a new kind of maternal influence, however. This comes from harmful substances in the mother's bloodstream that pass through the placental barrier into the bloodstream of the unborn child.

Box [illegible]

CONDITIONS AFFECTING PRENATAL DEVELOPMENT

Maternal Nutrition

The unborn child's nourishment comes from the maternal bloodstream through the placenta. The mother's diet must contain sufficient proteins, fats, and carbohydrates to keep the child healthy.

Vitamin Deficiency

Deficiency of vitamins C, B-6, B-12, D, E, and K is especially likely to interfere with the normal pattern of prenatal development.

Maternal Health

Maternal health conditions that are known or believed to have the greatest effect on the unborn child include endocrine disorders, infectious diseases, prolonged or wasting diseases, and pronounced under- or overweight.

Rh Factor

Incompatability between the maternal and paternal blood types causes damage to the cells of the fetus. This leads to physical or mental complications often serious enough to result in death or permanent injury to the child.

Drugs

Too little is known, to date, about which drugs are safe for a pregnant woman to use and which may be damaging to her unborn child. Pregnant women are strongly advised to take *no* drugs without their doctors' knowledge or consent.

X ray and Radium

When used in early pregnancy for therapeutic purposes, X rays and radium are usually damaging to the unborn child. When used for diagnostic purposes toward the end of pregnancy, they have no effect on the fetus.

Alcohol

There is little evidence that use of alcohol by a pregnant woman will damage her unborn child so long as it is used sparingly. If used frequently and heavily, it is likely to damage the child's physical and mental development.

Tobacco

Smoking is most damaging to the unborn child when the mother inhales. Even when she does not inhale, there is some evidence that maternal smoking affects the fetal heart rate and the chemical content of the fetal blood.

Parental Age

Before 21 years of age, the female reproductive apparatus is not fully mature and the hormones needed for reproduction have not reached their optimum levels; after 29 years, hormonal activity gradually decreases. There is no evidence that paternal age affects the unborn child's development.

Maternal Emotion

In mild maternal stress, fetal activity and fetal heart rate increase. Severe and prolonged maternal stress lead to "blood-borne anxieties" which affect postnatal as well as prenatal development.

Uterine Crowding

In multiple births, crowding may limit fetal activity, which is important for normal development.

CAUSES OF DEVELOPMENTAL IRREGULARITIES

Scientific studies of the causes of developmental irregularities justify two important conclusions. *First,* the irregularities may be due to defective genes, but are far more likely to be due to environmental disturbances in the uterus. *Second,* the irregularities result from environmental disturbances which occur at the same time as the formation of a particular organ.

Defective Genes versus Environmental Disturbances. While irregularities in development may be the result of either a good egg in a bad environment or a bad egg in a good environment, the first alternative is most likely. If there are defective genes, the chances are that nature will eliminate the unfit by a miscarriage during the early part of pregnancy, by a spontaneous abortion during the latter part of pregnancy, or by a stillbirth. Not all miscarriages, spontaneous abortions, or stillbirths result from developmental irregularities, but more than a chance percentage of them do. A miscarriage due to a defective fertilized ovum generally occurs early in the prenatal period. When the fertilized ovum is normal but the environment in which it is developing is abnormal, the miscarriage usually comes later.

Environmental abnormalities caused by the conditions listed in Box 4–4 play a dominant role in producing developmental irregularities. Note, however, that only when these conditions are severe and prolonged do they have damaging effects.

Serious or *prolonged* malnutrition of the mother has been reported to lead to mental deficiency or physical abnormality in the child. The result may be rickets, nervous instability, general physical weakness, epilepsy, cerebral palsy, neuropsychiatric disabilities, or some other defect. *Prolonged* malnutrition may be due to poverty, ignorance of proper food values, or the mother's desire to maintain a slim figure (20, 28, 63, 117).

Mild endocrine disorders are not serious. Pronounced thyroid deficiency, on the other hand, may result in *cretinism*—a condition in which the bones and cartilage fail to develop, the abdomen becomes large and flabby, the skin is rough and coarse, the hair is shaggy, and the intellectual development is subnormal. A pronounced endocrine imbalance may result in *microcephaly,* a mental deficiency accompanied by a small pointed skull, or *mongolism,* a mental deficiency accompanied by slanting eyes (11, 35, 84).

Endocrine imbalance during pregnancy often comes from prolonged and intense emotional stress. The woman may not want a child, or she may not want one at that particular time. Studies show that maternal stress at any time during pregnancy may lead to physical or mental defects in the child. Stress during the period of the fetus often results in premature birth, difficult labor, or stillbirth (30, 42, 50, 51, 80). From observations of the damaging effects of maternal stress, Ferreira has concluded that "the psychiatric and social implications of these observations suggest a sober reappraisal of the current attitudes toward the unwanted pregnancy" (42).

Timing of Environmental Disturbance. The conclusion that irregularities result from disturbances which occur at the same time as the formation of a particular organ means that the *time* when the agent is introduced, rather than the agent itself, is the determining influence. There is a special period in the timetable of prenatal development for the formation of each organ. If something interferes with the timetable, the course of growth in the different parts of the body will be altered, and abnormalities will result.

The first 3 months of prenatal life are the critical developmental period. During the period of the embryo, all the structures of the body are being formed. From the eighth week on—the period of the fetus—the structures whose foundations were laid during the period of the embryo are being completed. In explaining why the first 3 months of the prenatal period are so critical, Garn (46) has written:

> *The first trimester . . . is a time of tremendous danger to the embryo: though tiny, its rapidly developing cells are highly susceptible to oxygen-deprivation, toxins, and viral agents. It is during the first trimester that almost all developmental defects—the cleft palates, missing limbs, blindness and monstrosities we see at birth occur. Possibly a single virus affecting susceptible tissue at a critical horizon results in the association between Mongolism and leukemia. The one bright side of the picture of embryonic wastage and prenatal loss is that the grossest of the defects and the most lethal of the genes never get beyond the first trimester. Thus we are spared untoward numbers of defective individuals and our genetic makeup constantly purifies itself by prenatal attrition.*

Even though the first trimester is the most critical period in prenatal life, this does not mean that all possibility of damage from an unfavorable environment ends then. Unfavorable prenatal conditions rarely produce developmental irregularities when they occur *before* a certain part of the body has started to develop or *after* it has formed. *Rubella,* or German measles, for example, is a mild childhood disease, but if contracted by the mother *during the first 3 or 4 months of pregnancy,* it can produce such defects as cataracts, deafness, anomalies in the structure of the heart, defective teeth, microcephaly, and mental deficiency in the child. If contracted after the fifth month of pregnancy, it has no effect on the unborn child because the parts of the body affected by this disease are already formed (60, 84, 108, 116).

Similarily, *thalidomide,* taken during the early 1960's for morning sickness, nervousness, or sleeplessness, has no damaging effect on the unborn child if used after the first trimester of pregnancy. If taken during the first trimester, it causes malformation of the limbs—phocomelia—in which the long bones of the arms and legs fail to grow. In addition, it may cause strawberry marks to appear on the child's face. These defects are shown in Figure 4–7.

Severe *malnutrition* during the early months of pregnancy is responsible for a wide variety of developmental irregularities. Peckos has pointed out that it is "futile to correct the maternal diet after the first trimester of pregnancy in an attempt to prevent congenital anomolies" (97).

In Mongolian idiocy, the parts of the body usually deformed are those which are just "budding" around the eighth week of pregnancy. An abnormal condition of the prenatal environment at this time is now known to produce the deformities (11, 63, 84).

Prolonged emotional stress during the early part of pregnancy causes hyperactivity of the mother's adrenal glands, thus releasing an increased supply of the hormone *hydrocortisone.* This may cause cleft palates and harelips. Severe emotional stress during the first 3 months of pregnancy may also cause *mental retardation,* for it is at this time that the child's brain is developing (84, 93, 96, 106).

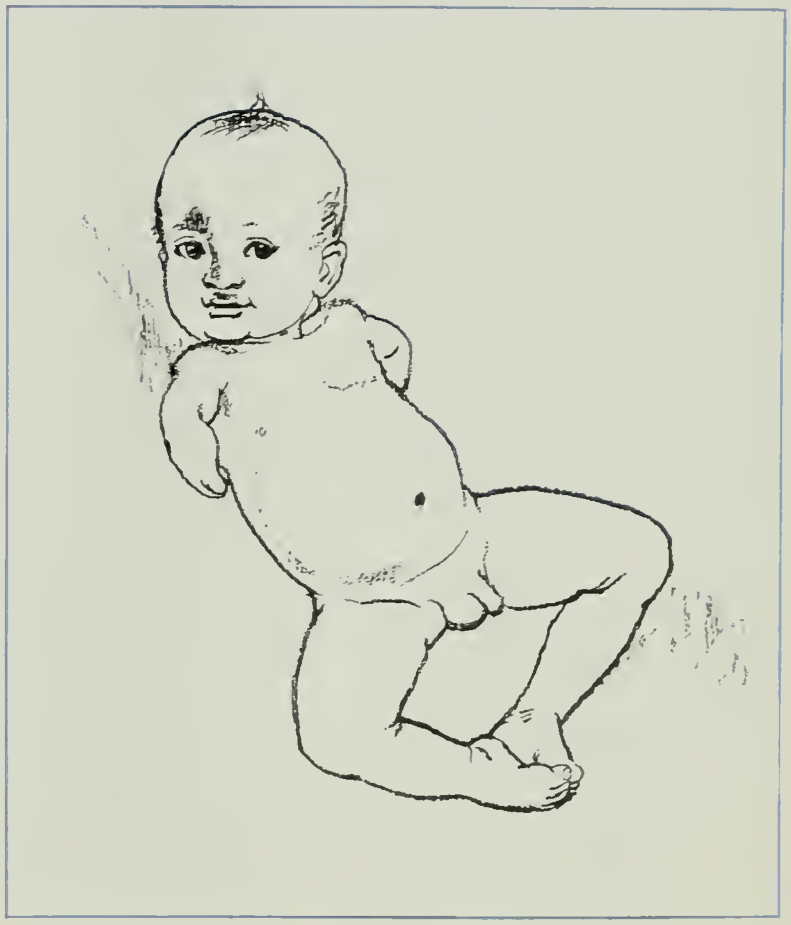
EFFECTS OF DEVELOPMENTAL IRREGULARITIES

Developmental irregularities can affect the whole course of a child's life. Blindness or deafness, for example, is a major handicap. Furthermore, physical defects affect the child's concept of himself as a person and thus influence his personality. Whether a child will grow up to be socially and emotionally well-adjusted will depend, to some extent, upon whether he comes into the world in a sound condition.

Family relationships—not only parent-child relationships but also relationships between husband and wife and between siblings—are influenced by developmental irregularities and by what parents *believe* to be the cause of them. Even though science has gone far to clear up the superstitions about maternal marking, many women are still influenced by them and fail to get proper medical care during pregnancy and childbirth.

The traditional belief that the mother is primarily responsible for any developmental irregularity that appears in her baby, whether it is a small birthmark or a serious mental or physical deficiency, often leads to feelings of guilt on her part and an unhealthy overprotective or overindulgent attitude toward the baby. Such an attitude will affect the child's whole future. The belief that the mother is responsible may also lead to friction between the parents. The effect of a handi-

Figure 4–7. Effects of thalidomide. Deformity of infant is typical: useless short arms and hands, characteristic strawberry marks on face and forehead. (Adapted from H. B. Taussig, The thalidomide syndrome, Scient. American. *1962, 207, No. 2, 29–35. Used by permission.)*



capped child on family relationships will be discussed in more detail later in connection with family relationships.

EXTENT OF DEVELOPMENTAL IRREGULARITIES

The unfortunate effects that developmental irregularities have on the child and on the members of his family—and also on the social group if he must be cared for at public expense—are given widespread publicity today. People tend to conclude that more children are damaged before birth than ever before. Actually, however, there are no medical records available to tell just how many children suffer from defects brought on by a poor prenatal environment.

Some of the ill effects of an unfavorable prenatal environment may not become apparent for many months, or even years, after birth. Under such conditions, it is often assumed that the defect was caused by a postnatal condition. It is commonly assumed, for example, that rickets results from a dietary deficiency in postnatal life, while, in reality, there is medical evidence that rickets occurs in babies who were born prematurely and were thus deprived of the mineralization that normally takes place in the latter part of the period of the fetus.

Similarly, epilepsy, cerebral palsy, or mental deficiency may not become apparent until babyhood or the early years of childhood. Since we have, for example, no adequate tests for measuring mental retardation in the newborn infant, mental deficiency resulting from prolonged or severe malnutrition during the prenatal period may not be apparent until the child begins to have difficulties in school. Again, the defect may be incorrectly attributed to unfavorable postnatal conditions (66, 74, 93).

In spite of the lack of conclusive information, most scientists believe that the number of children afflicted with prenatal developmental irregularities is not so great as is popularly assumed. Parker (95) has given reassurance in this way:

> *Only one baby in two hundred, as an average, has some apparent abnormality at birth. Even this incidence is not as bad as it might seem at first, for it includes minor defects that will not mar the child's appearance or interfere with its normal life. It also includes defects that, while serious in nature, can be corrected surgically so that the baby need not be handicapped for life. Only a few will be hopelessly defective. Truly, nature has conducted well these journeys of the unborn. One of the reasons for nature's success in producing normal babies in such a high percentage of births is that she rejects a seriously faulty product long before it has reached completion.*

Attitudes of Significant People

While maternal health, nutrition, age, and the other factors discussed above are, unquestionably, the major influences in determining how the fertilized ovum will develop, *indirect* influences in the form of attitudes of significant people in the unborn child's life are too important to be ignored. As has already been stressed, a woman cannot influence her unborn child directly by her thoughts or feelings, except when they are accompanied by strong and prolonged emotional stress. The attitudes developed at this time are important, however, because they serve as the bases for maternal attitudes toward the child after he is born, toward the role of parent, and toward the child-training methods used during the early, formative years of his life. What is true of maternal attitudes is likewise true of paternal attitudes and, to a lesser extent, of the attitudes of siblings and other family members.

ORIGIN OF ATTITUDES

Most attitudes toward children and toward parenthood originate in the childhood experiences of the parents-to-be and crystallize when pregnancy is confirmed. Many women, from the time when they played with dolls, have looked forward to having children of their own, and have developed *definite* ideas of what they want their children to be like. Men are generally too concerned about their vocations to give much thought to parenthood during their childhood and youth. They do, however, have *general* ideas of what parenthood will mean to them. Attitudes toward children and toward parenthood also originate in the person's motivation for having children.

FACTORS INFLUENCING ATTITUDES

Parents' attitudes toward their children are influenced by their concept of the role of parenthood. Some people romanticize parenthood; some view it realistically. Some view it favorably; others, unfavorably. These attitudes have emotional accompaniments ranging from joy to fear, anger, and disgust. No two parents-to-be have had the same childhood experiences or the same experiences during pregnancy, and it is understandable that their attitudes should be different. Some of the factors responsible for variations in attitudes, however, are almost universally operative. We shall discuss the most important of these.

Desire to Have Children. Some people want many children, and others want a few or none; some feel that marriage is incomplete without children, and others feel that children interfere with their pleasures or place a barrier in the way of vocational success and upward social mobility; some have an egocentric interest in children, and others have little or no interest in them; and some do or do not want children because it is the "thing to do." Certain conditions predispose married women *not* to want children. The most important are poor marital adjustments and an engrossing career which would be interrupted or terminated by pregnancy.

Physical State during Pregnancy. The physical state of the mother-to-be influences her attitudes toward parenthood. If she suffers from nausea, vomiting, periodic discomforts, or pain, her attitude is apt to be unfavorably affected. If, on the other hand, she feels well and has few discomforts even at the beginning or end of pregnancy when discomforts are common, she will probably have a more favorable attitude. As Stone and Church (118) have remarked, however:

> *Some mothers feel physically ill during most of the pregnancy but are cheered by the thought of the baby to come; others are in robust health but live in dread of motherhood. For most women, pregnancy, like the rest of life, is a mixed bag of discomforts and rewards, hopes and fears, pain and elation.*

Emotional State during Pregnancy. For all women pregnancy stirs up certain psychological conflicts and involves a marked readjustment of husband-wife relationships. For many women, pregnancy is a time of anxiety, depression, and worry. It is also a time of fear about childbirth and the possibility of having a deformed or birth-injured child. Many women, especially if it is a first pregnancy, doubt their adequacy for parenthood or resent having to change the pattern of their lives. Most women, of course, are happy and joyful about having a child. Even for them, however, there may be moments of doubt, anxiety, or fear.

The fears, anxieties, and doubts mothers-to-be experience are intensified by fantasies and dreams. To determine whether the dreams of mothers-to-be contributed to their psychological stress during pregnancy, Gillman made a study of the dreams about babies reported by pregnant women. The study revealed that almost one-half of the dreams represented misfortune, harm, or environmental threat to the baby or the mother. The mothers who had the least favorable dreams also had the least favorable attitudes toward their future role of motherhood and they made the poorest adjustment to that role after the baby's birth (48).

Parental Concepts. Parents' attitudes are markedly influenced by their concept of the child as a person and by their idea of the parental role. Concepts about the *child as a person* tend to be more highly romanticized than concepts about the role of parenthood. This is more applicable to mothers than to fathers. In general, mothers-to-be want not just a child but a *particular type* of child. The physical and mental characteristics, the sex, and the personality of this "dream child" become sharply defined in the mother's mind as pregnancy progresses. Figure 4–8 shows the typical discrepancy between the mother's dream child and her real child.

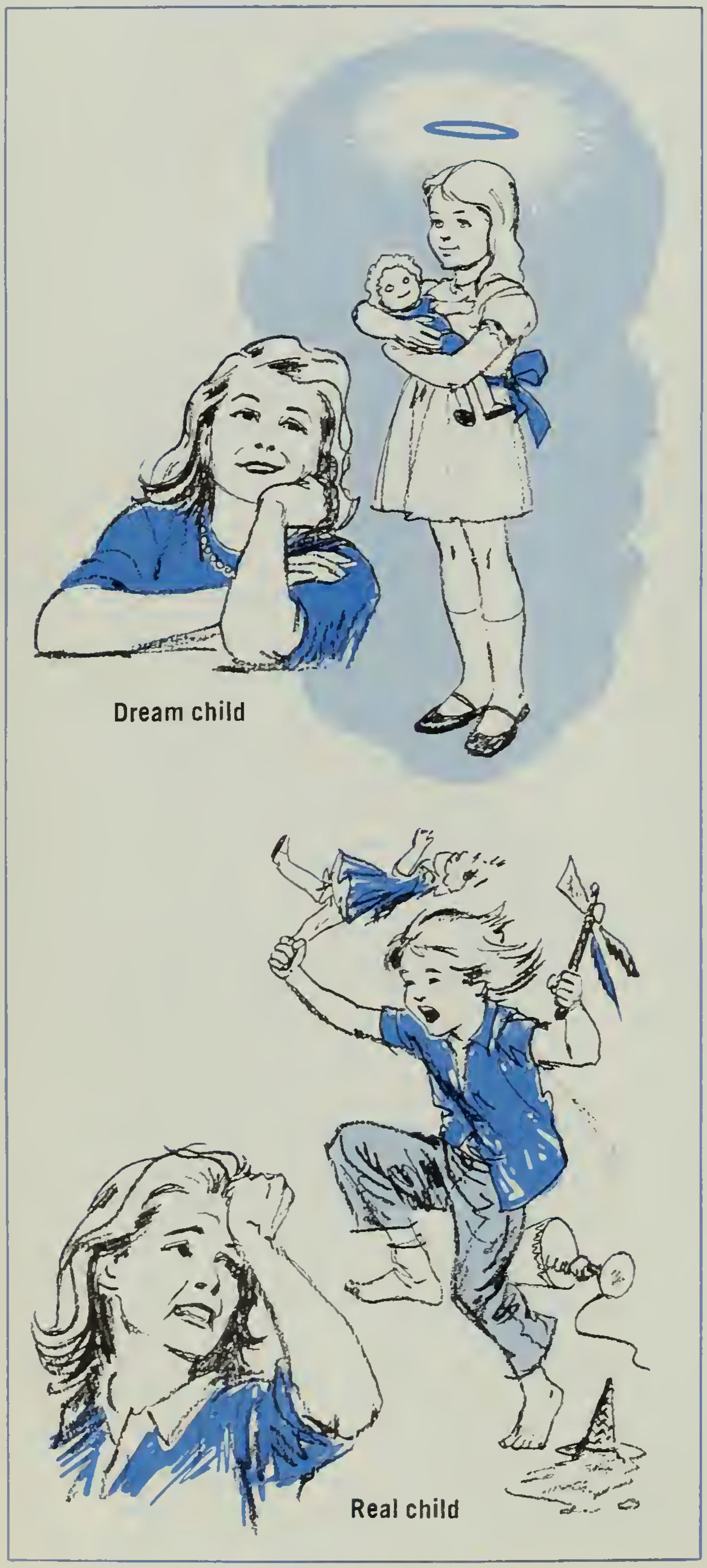
Many forms of so-called problem behavior in children are merely discrepancies between the behavior of real children and parental concepts of ideal behavior. A father's intolerance toward his son frequently traces its origin to the fact that the son falls short of what the father thinks *his* son should be. Similarly, parental intolerance of childish dawdling may come from a parent's concept of the importance of efficiency and his belief that the child must be quick-moving to attain success in life.

Concepts of parenthood are formed during the pregnancy, too, though they have their roots in childhood experiences. A child brought up in an authoritarian home may decide that when he becomes a parent things will be different for his children. Or he may decide that his parents did a pretty good job, and that, by following their pattern of training, he will do an equally good job on his children.

The tendency to romanticize the parental role—which is common among parents of firstborn children—has a damaging effect on parent-child relationships. Shortly after the baby is born, most parents realize that parenthood is much different from what they had imagined it to be.

Social Class of Parents. The social class with which the parents are identified influences their attitudes toward their children and toward parenthood. It has been reported that many adults from the lower social classes tend to look upon parenthood as the "inevitable payment for sex relations"—an unfavorable attitude as far as future treatment of children is concerned. Persons from the middle and upper classes tend to regard parenthood as the "fulfillment" of marriage and view their children with possessive pride and hope. Lower-class men tend to look upon their parental role as that of provider; many resent having to assume any responsibility for child care. Middle- and upper-class men, by contrast, tend to take pride in being "family men", and are often willing to sacrifice time, energy, money, or even vocational advancement for their children (16, 30, 131).

Figure 4-8. "Dream child" versus real child.



Economic Status of the Family. Closely related to attitudes associated with social class identification are those associated with economic status. If financial conditions are strained because of pregnancy shortly after marriage, if the young parents are just getting on their feet financially, or if the wife planned to work to further her husband's vocational aims, parental attitudes toward the arrival of a child are likely to be adversely affected. One of the common reasons for attempted abortion is that the financial resources of the family can face no further strain (47, 130).

Age of Parents. Young parents tend, on the whole, to accept their parenthood lightly, not allowing it to interfere with their pleasures or future plans. If impending parenthood threatens to interfere with vocational aspirations, however, it is likely to lead to resentments. Older parents, in general, welcome their parental role more wholeheartedly than younger parents (16).

Mothers' Interests and Aspirations. Women who are eager to have children and whose major aspiration is to be a good mother have favorable attitudes toward their children-to-be and toward the maternal role. Mothers with professional training and experience, or those whose interests center mainly on social or vocational activities, frequently resent parenthood—at least at first. Later they may derive enough satisfaction from their new role to accept it without resentment. Far too often, however, they find the parental role less interesting and challenging than their former careers.

Mass Media. Finally, but by no means the least important factor contributing to variations in attitudes toward parenthood and toward the child as a person, is the role played by the mass media. Books, magazines, movies, television, and radio tend to present a romanticized version of families and family life. Girls, on the whole, prefer romantic stories and films, while boys prefer realistic stories. The sex differences in attitudes toward parenthood may be at least partially attributed to the influence of the mass media.

REASONS FOR UNFAVORABLE PARENTAL ATTITUDES

Why do parents-to-be develop unfavorable attitudes toward their children? The most important reasons are shown Box 4–5.

EFFECTS OF UNFAVORABLE PARENTAL ATTITUDES

Once formed, unfavorable parental attitudes have many undesirable consequences. They adversely affect the parent-child relationship not only at first but often for life. Even when parents try to conceal their attitudes, the child senses them as he grows older. A girl, for example, does not have to be told that her parents were disappointed that she was not a boy. She *knows* it from what they say and from the way they treat her male siblings. She may become hostile toward her parents and never be able to develop a good relationship with them.

Unfavorable parental attitudes affect the kind of personal and social adjustment the child makes as he grows older. Many cases of instability and maladjustment stem from the child's feeling that his parents reject him because he does not conform to their expectations or because he was unwanted. If he sees a sibling being better accepted than he, this intensifies his resentment and feelings of personal inadequacy.

Harmful parental attitudes are likely to be long-lived. They are not apt to change or disappear because, to the parents, they seem justified. A mother-to-be, for example, may feel that she and her husband cannot afford another child; she may feel overworked with the children she already has; she may want to continue a career because of the satisfaction it brings her or the material possessions she can buy with her salary; or, if the child is illegitimate, she may feel afraid, guilty, and resentful.

The strong emotions that usually accompany unfavorable parental attitudes add to their persistency. If an unmarried mother does not marry her child's father, for example, she is constantly afraid that the child's illegitimacy will be discovered, that she will be criticized and ostracized by her family and friends, and that her child will be rejected and mistreated by his age-mates. These fears reinforce her original rejection of the child.

Should the parents of an illegitimate child marry before the child's birth, the stigma of illegitimacy will be lessened. This is no guarantee, however, that the parents, forced into a "shotgun" marriage, will accept the child or provide a happy home atmosphere for him. Premarital pregnancy tends to intensify the normal conflicts of marriage and leads to resentments when marriage is forced. "Shotgun" marriages often end in divorce (47, 105).

SIBLING ATTITUDES

Attitudes of siblings are usually formed during the prenatal period of the new baby and are well established by the time he is born. How a child feels about a new baby will depend largely upon his age and his other interests. If he is still young, he may resent having to share his parents with the newcomer. The older child has friends and interests outside the home.

Box 4–5

CAUSES OF UNFAVORABLE ATTITUDES AMONG PARENTS

Strong Desire for a Child of a Given Sex

If the child is not of the sex the parents wanted, their disappointment often leads to a rejectant attitude.

Strong Desire for a Particular Type of Child

Very few children match the parents' dream child in looks, abilities, or personality. The further the real child deviates from the romanticized version, the more unfavorable the the parents' attitudes.

Not Wanting a Child

Whatever their reasons for not wanting a child, most parents regard them as valid. An unwanted pregnancy is always a source of resentment and anger—emotions which, no matter how carefully they may be cloaked, always lead to rejectant attitudes.

Not Wanting a Child at That Time

If a child is conceived at a time that parents regard as "inconvenient," the husband often blames the wife for being "careless," and she feels guilty about not preventing the unwanted pregnancy.

As long as the new baby does not interfere with the pattern of his life, his attitude will be favorable. He may even find the baby more fun to play with than his toys.

Adolescents, especially girls, often have an unfavorable attitude toward a new baby in the family. They are embarrassed about their mothers' pregnancy and are often called on to help take care of the baby. Their social lives may be curtailed somewhat, and, as a result, jealousy and resentment develop.

How the child is told about the expected birth of a sibling and by whom he is told likewise influence his attitude. If he has been promised a new playmate, with emphasis on the sex of this playmate, he is likely to build up a romanticized concept which will have to be radically revised after the baby's arrival. Even if the baby is of the desired sex, he will not be a real playmate for a long time. To make matters worse, the baby will usurp much of the mother's time and attention, so the older child will be deprived not only of her companionship but of the expected playmate as well. Should he hear from an outsider that he has a new sibling—after the mother has mysteriously disappeared and a stranger has come to take care of him—he is likely to build up a deep resentment which will be reflected in his behavior toward the sibling, perhaps for years to come. Sibling rivalries and jealousies are common when an older child has an unrealistic concept of what having a baby in the family will mean to him.

PERSISTENCE OF ATTITUDES

Parental and sibling attitudes, whether favorable or unfavorable, are unlikely to change radically. They do change somewhat, however. For example, studies of maternal attitudes during pregnancy and again after the birth of the baby report that mothers who had a rejectant attitude toward their unborn children become more acceptant after the children's birth. This shift may have been due primarily to a *repression* of their attitudes, owing to a feeling of guilt, rather than to an actual change in attitudes (14, 30, 34, 105).

Similarly, while attitudes toward the role of parenthood may change after the child is born, the fundamental elements of these attitudes persist. Favorable attitudes based on romantic ideas may deteriorate after the child is born or when the helplessness of the baby gives way to the growing independence of the toddler. If there is more work and personal privation than the parent had anticipated, as in the case of twins, the mother may suddenly feel victimized. On the other hand, unfavorable attitudes may give way to favorable attitudes when the parent experiences the satisfactions of parenthood.

FAR-REACHING EFFECTS OF ATTITUDES

Maternal health affects the child *before* he is born, while maternal attitudes affect him *both before and after*. Favorable attitudes formed during the prenatal period are apt to continue after the child's birth. While highly romanticized attitudes may become more realistic, there is little likelihood that they will become totally unfavorable unless the child falls far short of parental expectations. If a child is damaged by a poor prenatal environment, for example, parental attitudes may become either rejectant or overprotective, and these will have a marked influence on the way he adjusts to life.

When the father-to-be or older siblings look upon the new baby with antagonism, he is not likely to receive a warm welcome. Added responsibilities and personal deprivations are apt to intensify their already-existing resentments. As the child grows older, he will become aware of the antagonism, even though he may not be actually rejected.

Many kinds of problem behavior originate in a child's feeling that he is not accepted. Young children whose mothers had a stressful pregnancy and had attempted abortion have been reported to be more poorly adjusted than children whose mothers wanted them (98). A study of the postnatal adjustment of children whose mothers experienced low or high levels of anxiety during pregnancy showed, for example, that maternal anxiety not only affected childbirth adversely but carried over into parent-child relationships. The study also showed that maternal anxiety affected the children's intellectual and emotional adjustments: the children with highly anxious mothers had lower developmental quotients (30).

Similarly, unfavorable attitudes of outsiders, due perhaps to a child's illegitimacy, are formed before the child's birth and tend to persist. The child becomes increasingly aware of these attitudes as he grows older. They are certain to leave serious psychological scars and may result in problem behavior.

Highlights of Chapter 4

1. Early interest in the prenatal environment centered around the origin of life. Present-day in-

terest centers around how the unborn child develops, the conditions that influence his development, and how attitudes of significant people toward him are formed.

2. While life begins when the ovum is fertilized by the spermatozoon, these reproductive cells must go through a maturation process before fertilization can occur.
3. At the moment of fertilization, three important things happen that affect the child's life pattern: the determination of his hereditary endowment, his sex, and whether he will be a singleton or one of multiple births.
4. The hereditary endowment, determined by the fusion of chromosomes from the ovum and the spermatozoon, is entirely a matter of chance and nothing can be done to change it.
5. At the present time, it is impossible to predict or control the child's sex.
6. The child's sex affects his development directly through the sex hormones and indirectly through pressures to conform to culturally approved patterns for his sex.
7. The pattern of development for children of multiple birth, whether identical or nonidentical, differs during the prenatal period as well as in the postnatal environment from that for singletons.
8. In the prenatal period, crowding affects the development of children of multiple birth. In the postnatal environment, development is influenced by the close relationships of the children themselves and by social attitudes toward children of multiple births.
9. Prenatal development follows a predictable pattern marked off by three subdivisions: the periods of the ovum, of the embryo, and of the fetus.
10. The most important conditions affecting development before birth are maternal health, nutrition and vitamin deficiency, the Rh factor, drugs, X rays and radium, maternal use of alcohol and tobacco, maternal age and emotional stress, and uterine crowding.
11. Developmental irregularities may be due to defective genes, but they usually come from disturbances in the uterine environment, especially during the first trimester of pregnancy.
12. Developmental irregularities due to defective genes usually lead to miscarriages, while those due to unfavorable environmental conditions lead to defective children whose life pattern is markedly influenced by the defects.
13. Attitudes of parents toward the child, formed before the child's birth, are influenced by their desire for the child, the physical and emotional state of the mother during pregnancy, parental concepts of the child as a person and of the parental role, the age and socioeconomic status of the parents, maternal interests and aspirations, and the mass media.
14. Like parental attitudes, those of siblings and other relatives are formed before the child's birth and tend to be persistent, affecting their later treatment of the child.

Bibliography

1. Altemus, L. A., and A. D. Ferguson: Comparative incidence of birth defects in Negro and white children. *Pediatrics,* 1965, **36,** 56–61.
2. Altman, L. K.: Physicians urge exercise of caution in prescribing drugs during pregnancy. *The New York Times,* June 26, 1970.
3. Altman, L. K.: Conceiving found to peak here in fall. *The New York Times,* Oct. 27, 1970.
4. Anastasi, A.: Heredity, environment, and the question "How?" *Psychol. Rev.,* 1958, **65,** 197–208.
5. Babson, S. G., J. Kangas, N. Young, and J. L. Bramhall: Growth and development of twins of dissimilar size at birth. *Pediatrics,* 1964, **33,** 327–333.
6. Bailar, J. C., and J. Gurian: The medical significance of date of birth. *Eugen. Quart.,* 1967, **14,** 89–102.
7. Baker, J. W., and A. Holzworth: Social histories of successful and unsuccessful children. *Child Develpm.,* 1961, **32,** 135–149.
8. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders, 1966.
9. Barclay, D.: Twins: Not all "togetherness." *The New York Times,* Feb. 15, 1959.
10. Bayley, N.: Research in child development: A longitudinal perspective. *Merrill-Palmer Quart.,* 1965, **11,** 183–208.
11. Benda, C. E.: Mongolism: A comprehensive review. *Arch. Pediat.,* 1956, **73,** 391–407.
12. Bernstein, M. E.: Parental age and sex ratio. *Science,* 1953, **118,** 448–449.
13. Bernstein, M. E.: Studies in the

human sex ratio: Evidence of genetic variation of the primary sex ratio in man. *J. Hered.*, 1954, **44**, 59–64.

14. Bibring, G. L.: Some considerations of the psychological processes in pregnancy. *Psychoanal. Stud. Child*, 1959, **14**, 113–121.
15. Blatz, W. E.: *The five sisters.* New York: Morrow, 1938.
16. Bossard, J. H. S., and E. S. Boll: *The sociology of child development.* 4th ed. New York: Harper & Row, 1966.
17. Bowes, W. A., Y. Brackbill, E. Conway, and A. Steinschneider: The effects of obstetrical medication on fetus and infant. *Monogr. Soc. Res. Child Develpm.*, 1970, **35**, no. 4.
18. Brazelton, T. B.: Psychophysiologic reactions in the neonate. II. Effect of maternal medication on the neonate and his behavior. *J. Pediat.*, 1961, **58**, 513–518.
19. Brewer, S. P.: Defoliants used in South Vietnam are linked to birth defects. *The New York Times*, Dec. 7, 1969.
20. Brody, J. E.: Newborn child's health linked by study to weight of mother. *The New York Times*, Aug. 16, 1970.
21. Brody, J. E.: Risk for baby and mother seen in use of anesthesia at birth. *The New York Times*, *Apr. 17, 1970.*
22. Brown, A. M., R. E. Stafford, and S. G. Vandenberg: Twins: Behavioral differences. *Child Develpm.*, 1967, **38**, 1055–1064.
23. Brown, D. G., and D. B. Lynn: Human sexual development: An outline of components and concepts. *J. Marriage & Family*, 1966, **28**, 155–162.
24. Brown, L. B.: Social and attitudinal concomitants of illness in pregnancy. *Brit. J. med. Psychol.*, 1962, **35**, 311–322.
25. Carmichael, L.: The onset and early development of behavior. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 1, pp. 60–187.
26. Christensen, H. T.: Timing of first pregnancy as a factor in divorce: A cross-cultural analysis. *Eugen. Quart.*, 1963, **10**, 119–130.
27. Conniff, J. C. G.: The world of the unborn. *The New York Times*, Jan. 8, 1967.
28. Cravioto, J.: Malnutrition and behavioral development in the preschool child. *Courrier*, 1966, **16**, 117–127.
29. Damon, A., and R. L. Nuttall: Ponderal index of fathers and sex ratio of children. *Hum. Biol.*, 1965, **37**, 23–28.
30. Davids, A.: A research design for studying maternal emotionality before childbirth and after social interaction with the child. *Merrill-Palmer Quart.*, 1968, **14**, 345–354.
31. Davis, A., and R. J. Havighurst: *Father of the man.* Boston: Houghton Mifflin, 1947.
32. Demarest, R. J., and J. J. Sciarra: *Conception, birth and contraception.* New York: McGraw-Hill, 1969.
33. Dinitz, S., R. R. Dynes, and A. C. Clarke: Preferences for male or female children: Traditional or affectional? *Marriage fam. Living*, 1954, **16**, 128–134.
34. Doty, B. A.: Relationships among attitudes in pregnancy and other maternal characteristics. *J. genet. Psychol.*, 1967, **111**, 203–217.
35. Drillien, C. M.: Studies in mental handicap. II. Some obstetric factors of possible aetiological significance. *Arch. Dis. Childh.*, 1968, **43**, 283–294.
36. Eisner, B. G.: Some psychological differences between fertile and infertile women. *J. clin. Psychol.*, 1963, **19**, 391–395.
37. Engstrom, L., G. Geijerstam, N. G. Holmberg, and K. Uhrus: A prospective study of the relationship between psycho-social factors and course of pregnancy and delivery. *J. psychosom. Res.*, 1964, **8**, 151–155.
38. Ernhart, C. B., F. K. Graham, P. L. Eichman, J. M. Marshall, and D. Thurston: Brain injury in the preschool child: Some developmental considerations. II. Comparison of brain injured and normal children. *Psychol. Monogr.*, 1963, **77**, no. 11.
39. Etzioni, A.: Sex control, science and society. *Science*, 1968, **161**, 1107–1112.
40. Farquhar, J. W.: Prognosis for babies born to diabetic mothers in Edinburgh. *Arch. Dis. Childh.*, 1969, **44**, 36–47.
41. Fasten, N.: The myth of prenatal influences. *Today's Hlth*, 1950, **27**, 42–43.
42. Ferreira, A. J.: Emotional factors in prenatal environment. *J. nerv. ment. Dis.*, 1965, **141**, 108–118.
43. Flapan, M.: A paradigm for the analysis of childbearing motivations of married women prior to birth of the first child. *Amer. J. Orthopsychiat.*, 1969, **39**, 402–407.
44. Francher, H. L.: The relationship between the occupational status of individuals and the sex ratio of their offspring. *Hum. Biol.*, 1956, **28**, 316–322.
45. Freedman, D. S., R. Freedman, and P. R. Whelpton: Size of family and preference for children of each sex. *Amer. J. Sociol.*, 1960, **66**, 141–146.
46. Garn, S. M.: Growth and development. In E. Ginzberg (ed.): *The nation's children.* Vol. 2. *Development and education.* New York: Columbia, 1960, pp. 24–42.
47. Gebhard, P. H., W. B. Pomeroy, C. E. Martin, and C. V. Christensen: *Pregnancy, birth and abortion.* New York: Harper, 1958.
48. Gillman, R. D.: The dreams of pregnant women and maternal adaptation. *Amer. J. Orthopsychiat.*, 1968, **38**, 688–692.
49. Graham, F. K., C. B. Ernhart, M. Craft, and P. W. Berman: Brain injury in the preschool child: Some developmental considerations. I. Performance of normal children. *Psychol. Monogr.*, 1963, **77**, no. 10.
50. Grimm, E. R., and W. R. Venet: The relationship of emotional adjustment and attitudes to the course and outcome of pregnancy. *Psychosom. Med.*, 1966, **28**, 34–49.
51. Gunter, L. M.: Psychopathology and stress in the life experience of mothers of premature infants. *Amer. J. Obstet. Gynaec.*, 1963, **86**, 333–340.
52. Hagler, S., A. Schultz, H. Hankin, and R. H. Kunstadter: Fetal effects of steroid therapy during pregnancy. *Amer. J. Dis. Children*, 1963, **106**, 586–590.
53. Hartley, R. E.: Children's perceptions of sex preference in four culture groups. *J. Marriage & Family*, 1969, **31**, 380–387.
54. Heath, H. A.: Three eight-year-olds. *Child Develpm.*, 1967, **38**, 753–764.
55. Heinstein, M. I.: Expressed attitudes and feelings of pregnant women and their relations to physical complications of preg-

nancy. *Merrill-Palmer Quart.*, 1967. **13.** 217–236.

56. Helper, M. M., R. L. Cohen, E. T. Beitenman, and L. F. Eton: Life events and acceptance of pregnancy. *J. psychosom. Res.*, 1968. **12.** 183–188.
57. Hill, O. W.: A twin study. *Brit. J. Psychiat.*, 1968. **114.** 175–179.
58. Honzik, M. P., J. J. Hutchings, and S. R. Burnip: Birth record assessment and test performance at eight months. *Amer. J. Dis. Children*. 1965. **109.** 416–426.
59. Hooker, D.: The development of behavior in the human fetus. In W. Dennis (ed.): *Readings in child psychology*. 2d ed. Englewood Cliffs, N. J.: Prentice-Hall. 1963, pp. 1–10.
60. Horstmann, D. M., J. E. Banatvala, J. T. Riordan, M. C. Payne, R. Wittemore, E. M. Opton, and C. deV. Floray: Maternal rubella and the rubella syndrome in infants. *Amer. J. Dis. Children*. 1965. **110.** 408–415.
61. Howard, R. G., and A. W. Brown: Twinning: A marker for biological insults. *Child Develpm.*, 1970. **41.** 519–530.
62. Howard, R. W.: The developmental history of a group of triplets. *J. genet. Psychol.*, 1947. **70.** 191–204.
63. Ingalls, T. H.: Congenital deformities. *Scient. American*, 1957. **197.** 109–114.
64. Jones, H. E.: Perceived differences among twins. *Eugen. Quart.*, 1955. **2.** 98–102.
65. Kallman, F. J., and G. Sander: Twin studies in senescence. *Amer. J. Psychiat.*, 1949. **106.** 29–36.
66. Kawi, A. A., and B. Pasamanick: Prenatal and paranatal factors in the development of childhood reading disorders. *Monogr. Soc. Res. Child Develpm.*, 1959. **34.** no. 4.
67. Kempe, C. H., F. N. Silverman, B. F. Steele, W. Droegemüller, and H. K. Silver: The battered-child syndrome. *J. Amer. med. Ass.*, 1962. **181.** 16–24.
68. Khatri, A. A., and B. B. Siddiqui: "A boy or a girl?" Preferences of parents for sex of offspring as perceived by East Indian and American children: A cross-cultural study. *J. Marriage & Family*. 1969. **31.** 388–392.
69. Kim, C. C., R. J. Dales, R. Connor, W. Walters, and R. Witherspoon: Social interaction of like-sexed twins and singletons in relation to intelligence, language, and physical development. *J. genet. Psychol.*, 1969. **114.** 203–214.
70. Koch, H. L.: The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. *Monogr. Soc. Res. Child Develpm.*, 1960. **25.** no. 4.
71. Koch, H. L.: *Twins and twin relations*. Chicago: University of Chicago Press. 1966.
72. Knobloch, H., and B. Pasamanick: Seasonal variation in the births of the mentally deficient. *Amer. J. publ. Hlth.*, 1958. **48.** 1201–1208.
73. Kuhlen, R. G., and G. G. Thompson: *Psychological studies of human development*. 2d ed. New York: Appleton-Century-Crofts. 1963.
74. Landreth, C.: *The psychology of early childhood*. New York: Knopf. 1958.
75. Langsley, D. G., T. P. Burton, M. Griswold, H. Walzer, and R. B. Spinka: Schizophrenia in triplets: A family study. *Amer. J. Psychiat.*, 1963. **120.** 528–532.
76. Lewis, M., C. D. Wilson, P. Ban, and M. H. Baumel: An exploratory study of resting cardiac rate and variability from last trimester of prenatal life through the first year of postnatal life. *Child Develpm.*, 1970. **41.** 799–811.
77. *Life* Magazine Report: Drama of life before birth. *Life* magazine. Apr. 30, 1965.
78. Lyle, J. G.: Certain antenatal, perinatal and developmental variables and reading retardation in middle-class boys. *Child Develpm.*, 1970. **41.** 481–491.
79. Martin, P. C., and E. L. Vincent: *Human development*. New York: Ronald. 1960.
80. McDonald, R. L.: The role of emotional factors in obstetric complications: A review. *Psychosom. Med.*, 1968. **30.** 222–237.
81. Mead, M.: *Male and female*. New York: Dell. 1968.
82. Milham, S., and A. M. Gittelsohn: Parental age and malformations. *Hum. Biol.*, 1965. **37.** 13–22.
83. Mittman, H.: The adjustment of twins: An evaluation of the relationship between twinship, patterns of identification, and adjustment. *Dissert. Abstr.*, 1964. **25.** 3676.
84. Montagu, A.: *Prenatal influences*. Springfield, Ill.: Charles C Thomas. 1962.
85. Mowrer, E. R.: Some factors in the affectional adjustment of twins. *Amer. sociol. Rev.*, 1954. **19.** 468–471.
86. Myers, R. G.: Same sexed families. *J. Hered.*, 1949. **40.** 260–270.
87. *New York Times* Report: Twins bad luck sign in Africa, Mideast. *The New York Times*. Aug. 4, 1961.
88. *New York Times* Report: Reaction to multiple births varies among primitives. *The New York Times*, Oct. 12, 1963.
89. *New York Times* Report: Mothers advised, "Don't use drugs." *The New York Times*, Dec. 3, 1967.
90. *New York Times* Report: Second born is first in Japan. *The New York Times*. Nov. 21, 1968.
91. *New York Times* Report: Study finds smoking can imperil fetus. *The New York Times*. Apr. 11, 1970.
92. Newberry, H. H., F. N. Freeman, and K. J. Holzinger: *Twins: A study of heredity and environment*. Chicago: University of Chicago Press. 1966.
93. Norris, A. S.: Prenatal factors in intellectual and emotional development. *J. Amer. med. Ass.*, 1960. **172.** 413–416.
94. Offner, V. S.: A study of mothers of twins. *Smith Coll. Stud. soc. Wk.*, 1960. **31.** 45–46.
95. Parker, E.: *The seven ages of woman*. Baltimore: Johns Hopkins. 1960.
96. Pasamanick, B., and H. Knobloch: Retrospective studies on the epidemiology of reproductive casualty: Old and new. *Merrill-Palmer Quart.*, 1966. **12.** 7–26.
97. Peckos, P. S.: Nutrition during growth and development. *Child Develpm.*, 1957. **28.** 273–285.
98. Pinneau, S. R., and H. E. Hopper: The relationship between incidence of specific gastrointestinal reactions of the infant and psychological characteristics of the mother. *J. genet. Psychol.*, 1958. **93.** 3–13.
99. Plank, E. N.: Reactions of mothers of twins in a child study group. *Amer. J. Orthopsychiat.*, 1958. **28.** 196–205.

100. Pohlman, E.: Statistical evidence of rationalization: Preference for sex of child. *Psychol. Rep.,* 1967, **20,** 1180.

101. Rosengren, W. A.: Social status attitudes toward pregnancy and child-rearing attitudes. *Soc. Forces,* 1962, **41,** 127–134.

102. Rothbart, M. K., and E. E. Maccoby: Parents' differential reactions to sons and daughters. *J. Pers. soc. Psychol.,* 1966, **4,** 237–243.

103. Rusk, H. A.: Hallucinogenic drugs. I. Congenital defects to offspring added to peril to the mind and personality. *The New York Times,* Oct. 22, 1967.

104. Scarr, S.: Environmental bias in twin studies. *Eugen. Quart.,* 1968, **15,** 34–40.

105. Schaefer, E. S., and N. Bayley: Consistency of maternal behavior from infancy to preadolescence. *J. abnorm. soc. Psychol.,* 1960, **61,** 1–6.

106. Scheinfeld, A.: *Your heredity and environment.* Philadelphia: Lippincott, 1965.

107. Scheinfeld, A.: *Twins and supertwins.* Philadelphia: Lippincott, 1967.

108. Schmeck, H. M.: Toll of rubella epidemic assessed. *The New York Times,* Nov. 14, 1965.

109. Schmeck, R. M.: Pregnant women advised to gain weight. *The New York Times,* July 30, 1970.

110. Scott, E. M.: Psychological examination of quadruplets. *Psychol. Rep.,* 1960, **6,** 281–282.

111. Sever, J. L., K. B. Nelson, and M. R. Gilkeson: Rubella epidemic, 1964: Effect on 6,000 pregnancies. *Amer. J. Dis. Children,* 1965, **110,** 395–407.

112. Simpson, W. J.: A preliminary report on cigarette smoking and the incidence of prematurity. *Amer. J. Obstet. Gynaec.,* 1957, **73,** 808–815.

113. Smith, J. A., D. C. Renshaw, and R. H. Renshaw: Twins who want to be identified as twins. *Diseases of the Nervous System,* 1968, **29,** 615–618.

114. Sontag, L. W.: Implications of fetal behavior and environment for adult personalities. *Ann. N. Y. Acad. Sci.,* 1966, **134,** 782–786.

115. Sontag, L. W., W. G. Steele, and M. Lewis: The fetal and maternal cardiac response to environmental stress. *Hum. Develpm.,* 1969, **12,** 1–9.

116. Spencer, W. P.: Heredity: Facts and fallacies. In M. Fishbein and R. J. R. Kennedy (eds.): *Modern marriage and family living.* Fair Lawn, N. J.: Oxford, 1957, pp. 341–356.

117. Stearns, G.: Nutritional state of the mother prior to conception. *J. Amer. med. Ass.,* 1958, **168,** 1655–1659.

118. Stone, L. J., and J. Church: *Childhood and adolescence,* 2d ed. New York: Random House, 1968.

119. Sullivan, W.: Wider detection of defective fetuses expected to spur abortions. *The New York Times,* June 13, 1970.

120. Taussig, H. B.: The thalidomide syndrome. *Scient. American,* 1962, **207,** 29–35.

121. Very, P. S., and N. P. Van Hine: Effects of birth order upon personality development of twins. *J. genet. Psychol.,* 1969, **114,** 93–95.

122. Von Mering, F. H.: Professional and nonprofessional women as mothers. *J. soc. Psychol.,* 1955, **42,** 21–34.

123. Walters, C. E.: Reliability and comparison of four types of fetal activity and of total activity. *Child Develpm.,* 1964, **35,** 1249–1256.

124. Welford, N. T., L. W. Sontag, and D. Phillips: Individual differences in heart rate variability in the human fetus. *Amer. J. Obstet. Gynaec.,* 1967, **98,** 56–61.

125. Willerman, L., and J. A. Churchill: Intelligence and birth weight in identical twins. *Child Develpm.,* 1967, **38,** 623–629.

126. Williamson, D. A. J.: A syndrome of congenital malformations possibly due to maternal diabetes. *Develp. Med. & child Neurology.* 1970, **12,** 145–152.

127. Windle, W. F.: Neuropathology of certain forms of mental retardation. *Science,* 1963, **140,** 1186–1189.

128. Winestine, M. C.: Twinship and psychological differentiation. *J. Amer. Acad. child Psychiat.,* 1969, **8,** 436–455.

129. Wright, L. A.: Study of special abilities in identical twins. *J. genet. Psychol.,* 1961, **99,** 245–251.

130. Yeracaris, C. A.: Differentials in ideal family size. *Sociol. soc. Res.,* 1958, **44,** 8–11.

131. Zuckerman, M., J. I. Nurnberger, S. H. Gardiner, J. N. Vandiveer, B. H. Barrett, and A. den Breeijen: Psychological correlates of somatic complications in pregnancy and difficulty in childbirth. *J. consult. Psychol.,* 1963, **27,** 324–329.

132. Zuk, G. H.: The religious factor and the role of guilt in parental acceptance of the retarded child. *Amer. J. ment. Defic.,* 1959, **64,** 139–147.

EVE ARNOLD—MAGNUM

CHAPTER FIVE Effects of Birth on Development

EVERYONE REGARDS the anniversary of his birth as a red-letter day of the year. Friends and relatives celebrate it with good wishes and gifts. The day—like the word "birth"—symbolizes new beginnings and a surging of life.

Scientific interest in birth has centered around trying to discover what effect the circumstances of birth have on the pattern of a person's development. This interest has been heightened by the many traditional beliefs relating to birth and the more recent theories attempting to explain the effects of the birth experience. As a result of this scientific interest, there is now evidence that these effects do play a deciding role in the person's future development.

Beliefs about Significance of Birth

Traditional beliefs have long tried to explain the significance of one's day or month of birth and the effects of being born ahead of schedule (See Chap. 1).

Many of these beliefs may have been justified at the time they originated, and, it is not surprising that they persisted. When houses lacked central heating, for example, the cold seasons of the year were hazardous for the newborn infant. Therefore, traditional beliefs stressed the idea that children born during the spring and summer months were favored in many ways, especially in intelligence and in the possibility of achieving fame. Similarly, before the days of modern medicine, incubators, and medical techniques to nourish the premature child, few prematurely born children survived. Many of those who did survive were permanently harmed by their early struggle. Hence the belief that prematurity was perilous for *all* children and would affect the whole pattern of their lives.

Childbirth has always been a painful and hazardous experience for the mother. Even today, with new medical techniques to reduce the pain and risks of childbirth, it is never easy or completely safe. Consequently, it is not surprising that childbirth was believed to be a traumatic and hazardous experience for the child as well as the mother.

Such beliefs were not limited to the superstitious and illiterate. Philosophers and scientists also stressed the traumatic effects of birth. The birth cry, for example, has long been interpreted as the infant's expression of rage at being dislodged from the safety and comfort of the womb and suddenly thrown out into a cold and unfriendly world. Kant (1724–1804) called the birth cry a "cry of wrath at the catastrophe of birth" (55).

Among the early American psychologists, William James (1842–1910) suggested that the birth experience was so traumatic for the child that it left him in a state of shock. The child experienced the world as a "big, blooming, buzzing confusion" (53). More recently, members of the psychoanalytic school have suggested that there is a psychic *trauma* resulting from the rupture of the fetal relations with the mother. Adler referred to the birth cry as an indication of the infant's sudden and overwhelming feeling of inferiority at being placed in so new and complex an environment. These early suggestions were formulated into a theory of the effects of birth on the personality development of the child—Otto Rank's theory of the birth trauma.

According to this theory, the shock of birth creates a reservoir of anxiety which is a disturbing influence throughout life. Because birth is the first danger the child experiences, it provides the model for all later anxieties. It interrupts the "pleasurable primal state," and, so the theory goes, the child will always have an unconscious yearning to return to the safety and security of the womb (85).

Birth: An Interruption in the Developmental Pattern

Legally, life begins at birth; biologically, it begins at conception. That is why birth is merely an interruption of the developmental pattern, not the beginning of the pattern. For the baby who is about to emerge from the internal environment of the womb in which he has lived since his life began, it is a sudden and critical experience.

TYPES OF ADJUSTMENT

Because of the vast difference between the internal and external environments, the newborn child must make radical and rapid adjustments. If he does not make them, his life will be threatened. What are these critical adjustments? There are four: adjustment to the outside temperature and to the necessity of breathing, eating, and eliminating.

Adjustment to Temperature Changes. In the sac in the mother's uterus, the temperature is constantly around 100°F. In the postnatal environment, it will be between 68 and 70°F. and will vary, especially after the infant leaves the hospital nursery.

Adjustment to Breathing. In the amniotic sac in the uterus, the fetus is surrounded by a fluid environment: all oxygen comes from the placenta through the umbilical cord. When the cord is cut, after birth, the infant must inhale and exhale air. The birth cry normally comes when breathing begins and thus serves to inflate the lungs. At first, breathing is imperfect and irregular. The infant yawns, gasps, sneezes, and coughs in his efforts to regulate the amount of air he needs. If he is unable to do so, oxygen must be administered to help him establish normal breathing.

Adjustment to the Taking of Nourishment. Since the reflex activities of sucking and swallowing are often imperfectly developed at birth, the infant is frequently unable to get the nourishment he needs and thus loses weight. This is in direct contrast to the situation in his former environment, where he received constant nourishment through the umbilical cord.

Adjustment to Elimination. Within a few minutes or hours after birth, the excretory organs being to function, eliminating waste products from the body which formerly were eliminated through the umbilical cord and the maternal placenta.

TIME NEEDED FOR ADJUSTMENT

Although the time needed to bring about the change in locale from the mother's body to the world outside is seldom more than 48 hours even in a difficult birth, the time needed to adjust to the change is relatively long. Most babies require at least 2 weeks, and those whose birth has been difficult or premature require proportionally more time.

The time during which adjustments are made to postnatal life is known as "infancy." Infancy is divided into the *period of the partunate* and the *period of the neonate.* The length and the characteristics of each subperiod are shown in Box 5–1. During infancy, when the child is making his adjustments to the postnatal environment, no marked changes in development occur. It may, therefore, be regarded as a "plateau" in development—a time when development comes to a temporary standstill or may even show signs of regression.

DIFFICULTIES IN MAKING ADJUSTMENTS

A change in any accustomed pattern of life is upsetting, and adjusting requires both time and effort. The infant's adjustment to postnatal life is fraught with difficulty.

Loss of Weight. The first indication of the diffficulty the infant encounters is loss of weight. After birth, the infant normally loses weight for approximately a week. He may lose only a few ounces or he may lose a pound or more. As he becomes adjusted to his new environment and to the changes in behavior that are essential for survival, he begins to regain the lost weight. By the end of the second week of life, he is back to his birth weight, or may even show a slight weight gain. *Heavy infants* lose more and lose for a longer time than light infants. *Firstborn infants* generally lose less than those born later. Infants born in the *summer and autumn* regain their birth weight slightly sooner than those born in the winter and spring (73, 94).

Disorganization of Behavior. The second indication of the difficulty newborn infants encounter in adjusting to postnatal life is a disorganized pattern of behavior. Studies confirm James's statement, made before the turn of this century, that to a newborn infant the world is a "buzzing confusion." All infants

Box 5–1

SUBDIVISIONS OF INFANCY

Period of the Partunate

- This period covers the first 15 or 30 minutes after birth.
- With the cutting of the umbilical cord, the infant becomes a separate, distinct, and independent individual.

Period of the Neonate

- This period covers the remainder of the infancy period.
- According to medical criteria, it ends with the falling off of the umbilical cord, about 2 weeks after birth.
- According to psychological criteria, it ends with the regaining of lost birth weight and indications of a resumption of development.
- Adjustments essential to a life free from the protection of the intrauterine environment are successfully made.

experience a state of relative disorganization for 24 to 48 hours after birth. Their behavior suggests that they have been stunned by the experience. Ordinarily, pulse and respiration rates are irregular. The infant urinates and defecates frequently, wheezes, and regurgitates his food (14).

There are two major causes for this disorganized behavior. *First,* as Schwartz pointed out, "Almost every baby born normally suffers some disturbance of the cranial and even the cerebral circulation"(98). This disturbance is the result of the severe pressure on the head during the birth process (2). Deficient mechanisms for maintaining body homeostasis owing to the underdeveloped autonomic nervous system at birth, is the *second* cause. Before birth, homeostasis was maintained by the mother's homeostasis. With the cutting of the umbilical cord, however, the child must maintain his own homeostasis (63, 65).

Some infants require much more time than others to recover from the stunned state that leads to disorganization. On the average, they need about a week—approximately the time needed to start to regain the lost birth weight. Infants who lose much weight and regain it slowly are likely to take longer to achieve organized behavior.

Infant Mortality. The most important evidence of the difficulty newborn children experience is the infant mortality rate. The percentages of stillbirths—deaths at or immediately after birth—and deaths during infancy have been declining, owing to improved prenatal, childbirth, and postnatal care. But the death toll is still high.

Any time during the period of infancy may be regarded as critical for survival. The *most* critical *time* is the day of birth, and the next most critical is the second and third days after birth. With each day, the infant's chances for survival increase (73).

The most common causes of infant mortality are prematurity, congenital debility, malformation, injury at birth, pneumonia, influenza, diarrhea, and deficiency of oxygen resulting either from the excessive use of drugs to relieve the pains of childbirth or from having the umbilical cord tighten around the fetal neck during the birth process.

A number of factors influence the mortality rate during the neonatal period. *Sex differences* exist, with more boys dying than girls, even when they have the same birth weight. *Racial differences* are marked, with nonwhites showing a higher mortality rate than whites. Women who experience *stressful pregnancies* have more difficulties in childbirth, and their babies are more likely to be born dead, to die shortly after birth, or to have some congenital malformation.

The economic level of the family is a factor of influence, with the highest mortality rate occurring in families of the lowest economic levels. The poor prenatal diet of mothers in the low economic groups contributes to the high neonatal mortality rate. The greater the *birth weight* of the infant and the longer the *gestation period,* the lower the mortality rate in the neonatal period. There is a tendency for mortality to increase with increasing *birth order. Maternal age* likewise affects infant mortality. Women under 25 years and over 40 have more stillbirths and more infants dying shortly after birth than do mothers between these ages.

How Birth Affects Development

Traditional beliefs have stirred scientific curiosity about the effects of the birth experience on development and the persistence of the effects. From a practical as well as from a scientific angle, this knowledge is important. It would aid our efforts both to control damaging effects and to promote favorable effects.

If, for example, scientific evidence shows a relationship among the prenatal environment, the birth experience, and the person's future development, doctors should do all they can to help the pregnant woman have a normal and healthy pregnancy. If scientific evidence shows that excessive medication during childbirth has a detrimental effect on postnatal development—often extending beyond the normal period of adjustment to birth—then childbirth medication should be kept to a minimum.

TYPES OF BIRTH

Not all children are born in the same way. This is important to note because different types of birth have different effects on postnatal development. In general, there are four different types of birth. These are shown in Box 5–2.

By the use of the X ray several weeks before the child's birth, doctors today can usually determine whether there will be complications. If so, they usually deliver the fetus surgically by caesarean section. When unexpected complications occur during the birth process, instruments must often be used to aid the delivery.

CONDITIONS INFLUENCING BIRTH EFFECTS

A number of conditions affect the birth process and, hence, the infant's adjustment to his postnatal environment. Others are suspected of being important, but present evidence is inconclusive. Sometimes the influence is slight and transitory; sometimes it is severe and prolonged.

Type of Birth. Infants born spontaneously usually adjust more quickly and more successfully to their new environment than those who experience long and difficult labor where instruments or surgical delivery have to be used. Even in normal childbirth, however, maternal tension, resulting from fear of childbirth or from not wanting the child, will complicate the birth process and make the infant's adjustment to postnatal life more difficult.

Medication of Mother. Heavy dosages of drugs given to the mother to ease the pain of birth affect the child's early postnatal adjustment. The more anesthesia given to the mother, the longer and more difficult the child's adjustment. A comparison of newborn infants whose mothers had received anesthesia in different amounts revealed that for infants whose mothers were heavily medicated, the disorganization of behavior immediately after birth lasted 3 to 4 days, as compared with 1 to 2 days for those whose mothers had very light medication or none at all. The effects on the infant, however, varied according to the type, amount, and timing of medication. An inhalant anesthesia, for example, had a more transient effect than premedication, such as barbiturates.

The medication also affected breast-feeding, though no significant effect was found after the first 5 days of life, except that infants whose mothers had heavy medication lost more weight and took a longer time to regain it than those whose mothers had less. The former began to regain their lost weight after 6 days, whereas the latter began after 3 days (14).

Prenatal Environment. Any condition in the prenatal environment that keeps the fetus from developing according to the normal timetable will result in more difficulties at birth and in postnatal adjustment than are usually experienced. That is why, for example, the mortality rate is higher among infants whose mothers suffer from malnutrition. Intense and prolonged nervous and emotional disturbances of the mother during the last months of pregnancy are especially damaging. Many childbirth complications have been traced to this source (77, 105).

The effects of unfavorable prenatal conditions persist after birth and manifest themselves in various adjustment difficulties, such as feeding problems, gastrointestinal dysfunction, sleep problems, hyperactivity, and general irritability (31, 77).

Recent reports of postnatal adjustment difficulties and of childbirth complications in cases where the mother-to-be smoked excessively suggest that heavy smoking has a deleterious effect on the prenatal environment. Studies of women who smoke excessively, however, have found that their heavy smoking is a result of anxiety and general emotional tension. This finding raises the question whether smoking per se is the cause of childbirth and postnatal difficulties

Box 5–2

TYPES OF BIRTH

Spontaneous Birth

Spontaneous birth is usually referred to as "normal" birth because it is the most common form, and occurs without outside aid. In this kind of birth, the position of the fetus in the mother's uterus and the size of the fetus make it possible for the fetus to emerge headfirst. After the head, one shoulder and then the other appear as the fetal body rotates slowly in the birth canal. Next the arms emerge, one at a time, and finally the legs. See Figure 5–1.

Breech Birth

The fetal buttocks appear first, followed by the legs, the arms, and finally the head. If the position of the fetus cannot be changed before the birth process begins, instruments must be used to aid the delivery. See Figure 5–2 and compare with Figure 5–1.

Transverse-presentation Birth

The fetus lies crosswise in the mother's uterus. If this position cannot be changed before the birth process begins, instruments must be used to aid delivery.

Caesarean-section Birth

When the fetal body becomes too large to pass through the birth canal without a prolonged and difficult labor, even when instruments are used, the fetus is delivered surgically by making a slit in the maternal abdominal wall.

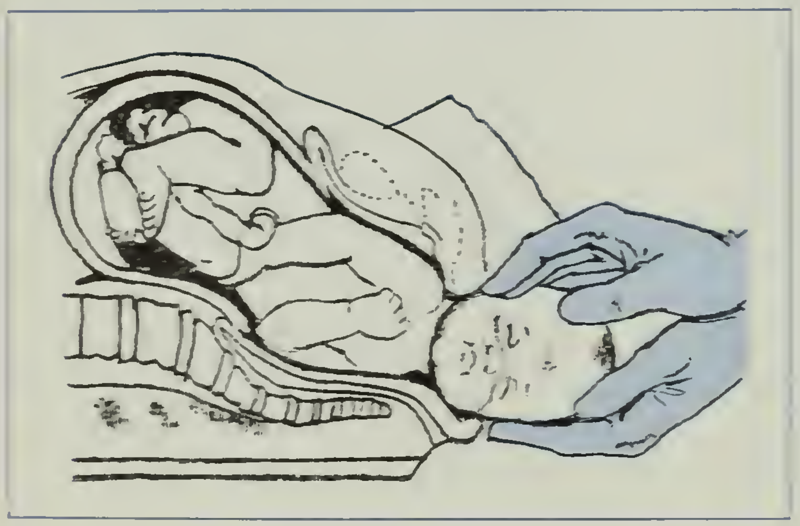
or whether intense emotional stress, manifested in excessive smoking, is the cause (15, 70).

Postnatal Care. After 9 months in the stable environment of the uterus, the fetus is suddenly thrust into an environment which is not only different, but highly variable. He must adjust immediately to temperature changes and to changes in his mode of feeding, eliminating, and getting oxygen. If his postnatal care is in the hands of persons who can help him make these adjustments, his difficulties will be greatly reduced and the time needed for the adjustments will be shortened.

In days when babies were born at home, the mother or a mother substitute was a constant source of aid in making these adjustments. With childbirth in hospitals, a stable source of aid is less common. A comparison of a group of newborn infants who received no more than the necessary handling in the routine care of a hospital nursery with another group who received three times as much handling and individual attention showed that the latter group cried less, gained weight sooner, and showed other signs of good adjustment to their postnatal environment more quickly (104).

While it is true that the newborn infant remains in the "deprived" hospital environment only 5 or 6 days before going home, these are the critical days in adjustment to postnatal life. Some hospitals recognize the importance of individual—and stable—attention by having newborn infants "room-in" with their mothers. The mothers can then give their newborn babies attention that would be impossible in the hospital nursery (110).

Figure 5-1 In normal childbirth, the fetus emerges from the mother's body headfirst. (*Adapted from* Heredity and Prenatal Development, *a McGraw-Hill Text-Film.*)



Parental Attitudes. The kind of care the newborn infant receives from his parents will be greatly influenced by their attitudes. In fact, the effects of parental attitudes may be more lasting in their influence on his development than the effects of birth.

The emotional reactions of parents toward a birth which has given the mother a minimum of discomfort will be quite different from those aroused by a prolonged and difficult labor, especially when this labor results in damage to the baby. A difficult birth is likely to make the mother overprotective of the child, particularly if she has been warned by the doctor of the danger of future pregnancies. The father's attitude, under these conditions, is likely to be colored by resentment and antagonism toward the child, partly because he feels the child has endangered his wife's life, partly because he feels it has deprived him of the number of children he wanted, and partly because he does not wish to be thought of as a man who lacks the virility to produce a large family. His attitude is also affected by "new father blues"—how much the infant disrupts his accustomed pattern of life and his relationships with his wife (72, 87).

Regardless of how easy or difficult the birth, most women suffer from "new mother blues." They feel anxious and depressed, usually because of the weakened condition that follows the ordeal of childbirth. Many feel incapable of coping with the problems they will have to face when they leave the hospital. Some resent the privations and changes in life style that the role of motherhood will entail.

If the mother's attitude toward her newborn child is negative, the child may regurgitate his milk, and develop gastrointestinal disturbances. He will then lose weight and strength and need more time to make the postnatal adjustments. If the mother is anxious, the child will cry more than normal both before and after feeding (77).

Birth and the adjustment period after birth can hold psychological hazards for parents just as they hold physical hazards for the child. While the great majority of babies are only temporarily affected by the physical hazards of birth, the psychological effects on the parents seldom pass so quickly. Parental attitudes are often quite resistant to change. Consequently, their effects on the child's development are likely to be greater and longer lasting than the physical hazards of birth. The reason for this can be found in the circular way that parental attitudes and behavior affect the infant and, in turn, the infant's response affects the parents and reinforces their attitudes. For example, anxiety on the part of the mother will cause the infant to cry excessively. His crying will make her more anxious, this will cause him to cry more, and so it will go on and on.

Parental attitudes and behavior, however, can and do change. Davids and Holden (31) have concluded that they may become either more favorable or more unfavorable and have explained the reasons in this way:

> *Such changes might well be a function of the infant's physical and/or temperamental attributes. Whether the infant is healthy or sickly, unusually attractive or obviously handicapped, unusually calm and contented or generally fussy and irritable, especially responsive to maternal contacts or somewhat rejecting of her—these are the kinds of infant variables that could well play a prominent role in modifying the mother's attitudes and personality during the first few months after childbirth. Then again, it might be that the infant's physical or emotional makeup has little to do with the mother's changed outlook or behavior. Rather, in certain cases, it might be that changes in the mother's physical condition, or changes in the husband-wife relationship (in either a positive or negative direction), or changes in the family's socioeconomic situation (for better or worse) are responsible for differences in maternal characteristics found during pregnancy and several months after childbirth.*

Effects of Birth Damage on Development

Most infants adjust successfully to their postnatal environments because they have not been damaged in any permanent way by the birth experience. A few, unfortunately, do not, and their life pattern is inevitably altered. Birth is a difficult and dangerous experience for the child, though there is evidence that the shock of birth is physical rather than psychological, as Rank claimed (85).

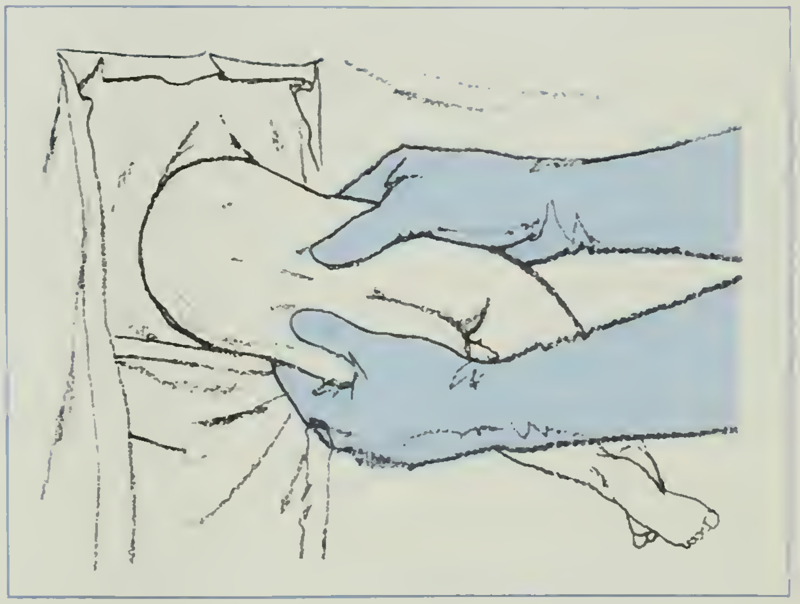
CAUSES OF BIRTH DAMAGE

While many things *might* happen during the birth process, there are two "great killers." These are injuries to the brain or nervous system and damage to the brain cells resulting from anoxia. The term "killer" does not necessarily mean that the infant will die. It means, in the broader sense, that his chances for a normal development are "killed." Even those infants who do not die as a result of brain damage may be so harmed that their hereditary potentials will never be reached. This may not be apparent for months or even years after birth.

Neorological Injuries. As the fetal body passes down the birth canal, there is certain to be some compression of the brain, especially if the fetal head is large. Under normal conditions, nature provides for this by adequately covering the brain tissue with a partially formed skull; however, the infant's head may be misshapen or marked where the forceps have been applied during birth. These birth scars normally clear up in a short time. The pressure generally has no permanent effect on the brain tissue, though most newborn infants are stunned for a day or two.

When birth is long and difficult, the pressure on the brain is increased. It may be great enough to cause hemorrhages in and around the brain. The effects of the hemorrhages may be temporary or permanent, depending mainly on their severity. The area of the brain that is damaged is also important. If the left hemisphere is damaged, for example, it is likely to affect speech.

Figure 5-2 In a breech birth, the buttocks appear first and the head last. (Adapted from N. J. Eastman and L. M. Hellman: Williams obstetrics, *13th ed. Appleton-Century-Crofts, 1966. Used by permission.)*



Injury may also be done to some other part of the nervous system. Pressure may be great enough to fracture a bone. Should this occur near nerve centers, there may be temporary or permanent damage to some of them or to the sense organs, especially the eyes and ears.

Prematurely born infants are particularly subject to brain injury during birth. The skull of the premature infant is not so well formed, and consequently the delicate tissue of the brain is not so well protected as it would be if birth were at full term.

Anoxia. The second "great killer" at the time of birth is anoxia—an interruption of the oxygen supply to the brain. Today, many doctors regard anoxia as more common and more damaging than pressure on the brain during birth. The extent of the brain damage will depend on the severity of the oxygen deprivation. Damage may be temporary or permanent. A total lack of oxygen will kill the brain cells in 18 seconds. A longer deprivation can kill the infant.

Most cases of anoxia occur during the birth process. Difficulties may arise before birth, however. They may be caused by the premature separation of the placenta, which cuts off the oxygen supply to the fetal bloodstream, or by abnormalities in circulation which interfere with the fetal supply of nutritional substances and oxygen.

VARIATIONS IN BIRTH DAMAGE

Studies of different types of birth have revealed that even a natural, spontaneous birth is not without hazards. Records of fetal hearbeats obtained from highly sensitive electrodes placed on the mother's abdomen in the vicinity of the fetal heart have shown that in approximately the middle of labor, the fetal heart displays wide swings of beat rate. In the last part of labor, the heartbeat slows down to approximately one-half the normal rate. Uterine contractions in childbirth generally slow the fetal heart: only occasionally do they accelerate it (73). Records of the brain waves of newborn infants show that the ordinary birth process produces a minimum of disturbance, suggesting only temporary brain damage. Difficult births, on the other hand, many of which necessitate the use of instruments to aid delivery, produce more disturbance and more severe and lasting damage.

In a breech birth, for example, there is always the possibility of anoxia—the possibility that before the head emerges, the fetus will be cut off from the oxygen supply and that this will either damage or kill the brain cells. Since epilepsy is most common among children delivered in breech birth, this disorder is believed to be the result of damage to brain cells caused by oxygen deprivation. A transverse presentation inevitably necessitates the use of instruments, and these may, if applied to the fetal head, cause brain injury (73, 120).

The infant delivered by caesarean section is less likely to suffer brain injury at birth than one delivered by a long, difficult birth requiring the use of instruments. He often has difficulty establishing respiration, however, and his brain cells may suffer from oxygen deprivation (98).

The effects of birth vary also according to the *duration* and *difficulty* of birth. Infants born with minimum difficulty and requiring the average time of 6 to 14 hours for birth are least likely to show any serious or permanent effects. Nervousness and anxiety are more common among children born with difficulty. It is impossible to say whether these conditions are the result of brain damage at birth, the mother's attitude and methods of handling the child, or both (31, 106).

Precipitate labor—labor of less that 2 hours' duration—has deleterious effects on later intellectual development. It is likely to introduce the infant to oxygen too suddenly, with the result that he may suffer from anoxia.

EARLY INDICATIONS OF BIRTH DAMAGE

How the newborn infant adjusts to his new environment during the first few days of life will give a clue to whether the effects of birth have been unfavorable and, if so, to what extent. Other clues may be found in hyperactivity or hypoactivity, the duration of the period of disorganized activity, the kind of cry the infant uses in response to internal stimuli, and the degree of maturity in such behavior as holding the head, grasping, or muscle tension.

Normally, the pain threshold declines during the first 4 days of life. This means that, each day, the infant responds to weaker and weaker pain stimuli. For babies who have suffered from anoxia, the pain threshold not only is higher than normal at birth but does not follow the normal pattern of decline. Sensitivity to pain may thus be used as a clue to how birth has affected the infant (64).

The cry of the damaged infant differs from that of the normal infant. Instead of being loud and lusty, it may be weak and intermittent; or it may be high-pitched or low-pitched and persistent, giving the impression that the infant is fussy and whimpering (31, 94).

Brain damage is not necessarily revealed by any one set pattern of behavior. This should be emphasized. Some damaged infants are hyperactive, irritable, and sensitive to any mild stimulation, and give generalized rather than specific responses. Others show diminished general activity and are placid and apathetic. On the other hand, if they make satisfactory adjustments to their new environment, it is unlikely that any ill effects of birth will persist. An unusual circumstance connected with birth may be responsible for deviation from the normal pattern. For example, caesarean babies cry the least of all newborn infants, but this does not mean that their apparent apathy is a sure sign of birth damage. On the contrary, except when they have been damaged by oxygen deprivation, caesarean babies make better adjustments to their postnatal environments than instrument-delivered babies (94).

Similarly, the mother's use of drugs during childbirth may retard the infant's adjustment to postnatal life or cause deviant behavior. While drowsiness and disorganized behavior persisting beyond the normal time could be interpreted as an indication of birth damage, they should not be so interpreted when it is known that special circumstances associated with the birth may be responsible.

LATER INDICATIONS OF BIRTH DAMAGE

The low level of physical and mental development normally present at birth makes it almost impossible to detect symptoms of birth damage immediately. Motor disabilities, cerebral palsy, epilepsy, low-grade intelligence and sensory defects may not be apparent until the child is old enough to be tested or until the baby fails to develop according to the usual pattern. Frequently, intense anxiety is the first symptom of the aftereffects of brain damage during a long and difficult birth. On the other hand, it may be the result of unfavorable environmental conditions (49, 106).

It has been found that *some* school children who have difficulties in learning to read had complications during birth. The greater the birth complications, the greater the chance of retardation in reading (57). But there are *many* causes of reading difficulties, and brain damage is *only one* of them. How common a cause it is has not been determined.

Studies of older children and adolescents who were born with the aid of instruments have shown that "instrumental delivery has not had a devastating effect upon the mentality of children who survive." Many of them, however, have more unfavorable personality characteristics than those born spontaneously. Among the traits reported as more common among those born with the aid of instruments are general hyperactivity, restlessness, speech defects, and poor concentration. Whether these were caused by the birth experience, by the attitudes of parents, or by some other factor is unknown (49, 59, 89, 105).

In sum, while the chances are great that complications during the birth process will have some unfavorable effect, there is no evidence that they will lead to permanent brain damage. It is true, however, that complications at birth will color parental attitudes and therefore will leave their marks on the pattern of the child's development. This will be discussed below.

PREVALENCE OF BIRTH DAMAGE

It is important to recognize that an *abnormal birth does not necessarily mean an abnormal child.* Because of the publicity given to defects resulting from brain damage before or at birth, however, most people assume that many more children are damaged than is probably true. Parents-to-be become apprehensive as the time for their child's birth approaches, and after his birth, they are concerned if his appearance or behavior deviates in any way from what they anticipated. While there are no medical statistics showing exactly how many babies are damaged at birth, it has been *estimated* that, of all infants who survive birth, only 7.5 percent suffer from any kind of malformation. The most common results of birth damage are mental deficiency, motor disabilities, paralysis. cerebral palsy, birthmarks, and sensory defects, mainly in vision and hearing. Malformations of the muscularskeletal system and of the skin are especially common (35, 37, 49, 101).

Brain damage is more frequent among male than among female infants and more frequent among nonwhites than among whites. The usual explanation for the greater incidence of damage among males is that the head of the male fetus is larger than that of the female and is thus subject to greater pressure during the birth process. Damage is more common among nonwhites than among whites because, as a group, the mothers of nonwhite babies receive less medical attention during pregnancy. As a result, complications in childbirth are more common. When socioeconomic status is held constant—that is, when nonwhite infants are compared with white infants of the same socioeconomic status—these differences disappear (28, 35, 57).

The number of children with defects due to brain damage is greater today than in the past. This is not because more fetuses are damaged at birth; in fact, modern techniques of delivery have reduced the number of cases of brain damage. At the same time, however, modern techniques and improved postnatal care keep many more birth-injured infants alive today.

EFFECTS OF BIRTH DAMAGE ON PARENTAL ATTITUDES

Parents of a baby who is damaged at birth or whose life hangs in the balance for days or weeks after birth will, understandably, have an apprehensive attitude. This will be reflected in their treatment of him, often long after the danger has passed.

Should birth damage result in the child's total disability, an element of hopelessness serves to frighten and embitter the parents. Because of the necessity of special care for the brain-damaged child, the mother is likely to become overpossessive and overprotective, thus retarding even further the child's development. This behavior is often the mother's way of denying or compensating for guilt about having such a child. The parent who did not want a child in the first place is likely to regard the birth damage as "God's punishment." A favorable parental attitude is not likely to change just because the child shows signs of not being normal. Instead, the parents will want to compensate for the child's handicap by doing everything possible to lessen his burden. They may want to have another child as quickly as possible in the hope that it will fulfill their expectations.

Effects of Time of Birth on Development

Is there a "best time" to be born? Scientific interest in this question has provided a great deal of reliable information. The old belief that being born under certain stars would fix one's destiny has not been substantiated. Some evidence appears to show that more births do occur during the fall and new moon stages of the lunar cycle, but there is no evidence—at least to date—that this has any effect whatsoever on the pattern of the child's development (69).

EFFECTS OF SEASON ON INTELLIGENCE

It has been believed, through the centuries, that the spring and summer seasons are the best times to be born. To find out how much credence can be put on this belief, scientists have made studies of the mental abilities of children born at different times of the year. In general, the results have shown that the effects of the season of birth are exceedingly slight. Spring and summer babies are no brighter, on the average, than winter and autumn babies. Within each group, however, there are variations (4, 10, 43, 75, 76, 80). Studies of eminent men have likewise failed to support the belief that people born in certain months or seasons are brighter and will, as a result, achieve greater success. Some studies have shown that more outstanding men were born in the fall than in the spring, while other studies claim other "best seasons" (10, 76).

EFFECTS OF SEASON ON PERSONALITY

Children born during the "cheerful seasons" of the year, spring and summer, will, according to tradition, be extroverts: They will be gay, cheerful, outgoing personalities. Those born in the "gloomy" fall and winter months will, by contrast, be introverts—dour and gloomy.

While few scientific investigations have been made to test these traditional beliefs, some studies have reported that children born in the spring, summer, and autumn months are decidedly more sociable than those born in the winter months. Other studies have found that season of birth has no effect on personality (7, 32).

EFFECTS OF SEASON ON BIRTH DAMAGE

Prenatal complications, which often result in damage that is apparent at birth or shortly afterward, are more common during the spring and summer. Neonatal deaths are reported to be most common in June and July (7). Figure 5–3 shows the common causes and peak periods of neonatal deaths. To date, no satisfactory explanation has been given for these variations.

CONTRADICTION TO OLD WIVES' TALES

The studies that have been made to date provide no clear-cut, uncontradicted evidence that the time of birth, per se, has any influence on the physical, intellectual, or personality development of the child. On the other hand, there is evidence that *any* season may be good or bad, depending on the child's hereditary endowment, prenatal environment, birth experience, health and other factors. In short, the evidence shows that *how* the person is born is far more important than *when* he is born.

Effects of Prematurity on Development

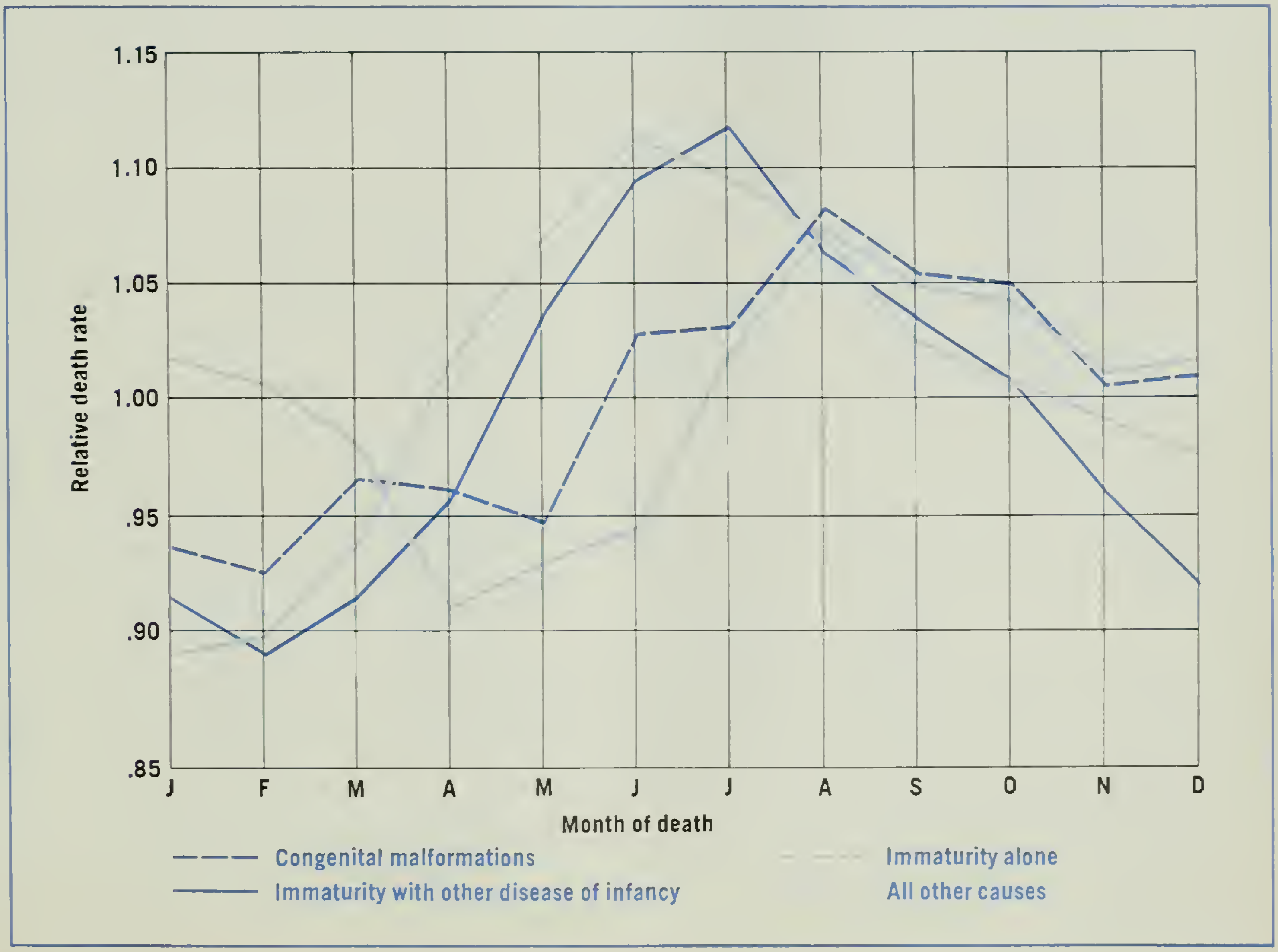
Prematurity means that the newborn infant is relatively unfit for extrauterine life because of a lack of development or a retardation in development caused by a shortening of the fetal period. Two criteria are generally used in determining whether a newborn infant is premature. These two criteria are described in Box 5-3.

PREVALENCE OF PREMATURITY

Medical science has found ways of preventing miscarriages but not of preventing the fetus from arriving ahead of schedule. As a result, the number of premature births has increased. It has been reported that 7 out of every 100 babies born in the United States are premature (73).

Prematurity is most likely to occur among firstborn children, and this accounts partially for the higher mortality rate among the firstborn. It is most common among infants of the lower socioeconomic classes and is more common among nonwhites than whites. Small women are more likely to give birth prematurely than larger women. Prematurity occurs more often in multiple births than in singletons. The larger the number of infants in a multiple birth, the greater the chances of prematurity and the greater the prematurity (97, 123).

Figure 5-3. Relative infant death rate for broad causes of death by month (adjusted for length of month), United States, 1955–1959. (Adapted from U.S. Department of Health, Education, and Welfare: Vital Statistics of the United States, 1970.)



CAUSES OF PREMATURITY

In spite of the traditional belief that prematurity is caused by some imprudent act on the part of the mother, there is little medical evidence to substantiate this belief. On the other hand, medical science has not yet pinpointed the exact cause or causes. It has found strong evidence that a number of conditions either cause or contribute to prematurity: uterine crowding in multiple births and unfavorable prenatal environments due to maternal malnutrition, illness at critical times in pregnancy, prolonged and intense emotional stress, and excessive drinking and smoking. There is even stronger medical evidence that prematurity comes from a glandular imbalance in the mother's body. This imbalance is often caused by prolonged emotional stress (73, 97).

The reason for prematurity among children of multiple birth is that the human uterus is meant to house and protect only one fetus. When the combined size of two or more fetuses reaches the point where the uterine walls can expand no further, they are discharged from the uterus ahead of schedule.

Emotional stress *always* produces glandular imbalance. When the stress is intense and prolonged, the imbalance is pronounced and persistent. When a pregnant woman has a history of giving birth prematurely, her doctor may administer releasin—a hormone produced by the female reproductive glands. It is believed that a deficiency of this hormone is responsible for the uterine contractions that bring about premature labor (73).

Excessive drinking and smoking are common among women who give birth prematurely (100). Studies show that people who smoke excessively suffer from emotional stress. Smoking, like drinking, acts as a psychological pain-killer, helping them to forget, at least temporarily, the stress-inducing conditions. Consequently, it seems likely that heavy smoking is only an outward sign of stress. As stated above, intense stress produces a glandular imbalance which leads to premature labor.

No studies have been made of the relationship of excessive drinking to prematurity. Excessive drinking, like excessive smoking, is probably a *contributing factor* to prematurity. Future studies may substantiate this suggestion.

Box 5–3

CRITERIA OF PREMATURITY

Length of Gestation Period

When the gestation period is estimated at between 28 and 38 weeks, rather than the normal period of 40 weeks, the infant is premature. Since the gestation period cannot always be estimated accurately, this criterion is not as sound as the second criterion and, therefore, is less often used.

Birth Size

Birth size is calculated in terms of weight or the weight-length relationship. When the infant weighs 2,500 grams (5½ pounds) or less at birth, he is premature. Should the head circumference be less than 33 centimeters (12.87 inches) and the crown-rump length be less than 32 centimeters (12.48 inches) this is additional proof of prematurity.

DEVELOPMENTAL STATUS OF PREMATURE INFANTS

For the most part, scientific studies show that prematurity, per se, is not so serious as tradition claims. They indicate that many of the ill effects of prematurity are the result of unfavorable parental attitudes, colored by the acceptance of the traditional belief that premature children are destined to be handicapped.

The studies reveal that the developmental status of children born prematurely is generally below normal for the first 5 or 6 months of life. After that, the retardation becomes less and less until the age of 2 years, by which time the gap between full-term and prematurely born children is usually closed.

When the starting point for measuring development is taken as conception, rather than birth, less difference is noted between full-term and premature babies, even in the early months of life. A specific example will illustrate this point. A baby born 2 months prematurely will, when he is 2 months old, be more mature than a full-term baby who has just been born. Both have had 9 months of development. For the former, 7 months have been *in utero* and 2 outside; for the latter, 9 months have been *in utero.* When the premature baby is judged by norms for a 2-month-old full-term baby, he is at a decided disadvantage because the latter has had 11 months for development since conception, as compared with his 9 months. On the other hand, if his *age from conception* is considered, he will compare favorably with the full-term baby.

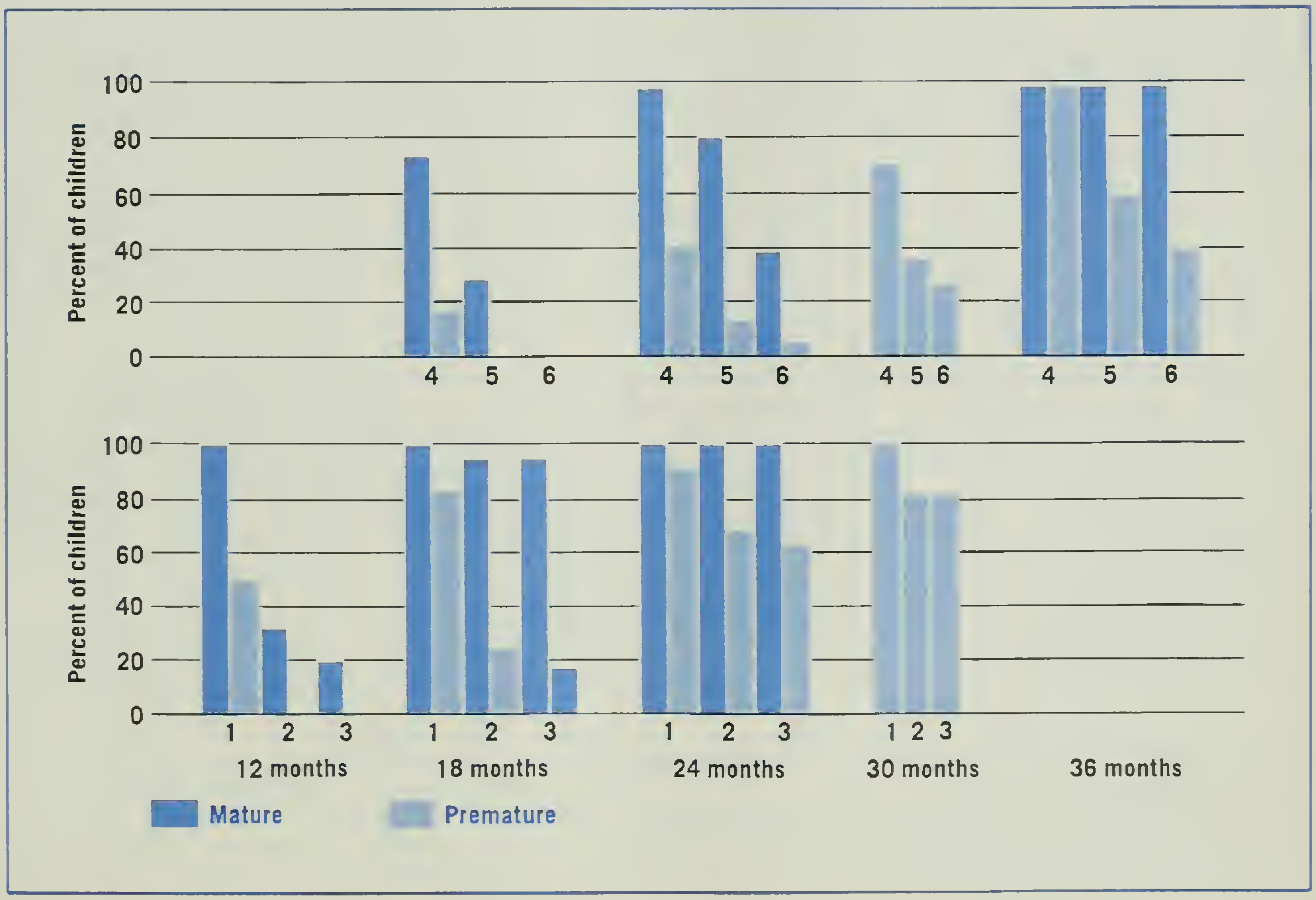
Studies of the effects of prematurity in different areas of development show that the behavior patterns of the prematurely born infant are similar to those of the full-term infant, though the former lags behind for a while. How much lag there is depends largely upon birth weight, *unless* the baby was injured in birth. Babies who weigh under 4 pounds at birth will be retarded by a month or more during the first 18 months of their lives; those weighing 4 to 5 pounds at birth will catch up to the norm for their ages by the time they are 9 or 10 months old. Figure 5–4 shows a comparison of the developmental status of premature and full-term infants up to 3 years of age in different areas of development. In Box 5–4 are listed the common effects of prematurity on later development.

DANGERS RESULTING FROM PREMATURITY

While many prematurely born children do not in the long-run suffer from the effects of prematurity, others do. Five effects of prematurity are especially harmful. Compared with full-term infants, prematures have more difficulty making postnatal adjustments and more frequent brain damage and death at birth. The birth experience is more likely to have long-term ill effects on later development and on parental attitudes.

Adjustments to Birth. For a child born prematurely, the adjustments to postnatal life are extremely difficult, owing to the undeveloped state of his brain.

Figure 5–4. Milestones of development in premature and mature children: (1) sitting, (2) standing, (3) walking, (4) single words, (5) phrases, (6) sentences. (Adapted from C. M. Drillien: A longitudinal study of the growth and development of prematurely and maturely born children. Part VI. Physical development in age period 2 to 4 years. Arch. Dis. Childh., *1961,* **36,** *1–70. Used by permission.)*



As a result of neorological immaturity, the premature infant breathes in jerks and gasps. He requires almost three times as much oxygen as a full-term baby. He is often anemic and must be given blood transfusions. Because the sucking and swallowing reflexes are weak, the premature infant must usually be fed artificially, through a tube or intravenously. He is unable to withstand normal changes in temperature, and must be kept in an incubator where the temperature is constant, as it was in the prenatal environment. Also, he is extremely vulnerable to infection and must have careful medical attention.

Brain Damage at Birth. The higher incidence of brain damage at birth among prematures is due to their greater susceptibility to excessive pressure on the brain and to anoxia. In the latter part of pregnancy, the period of the fetus, the bones, including the bony covering of the brain, develop rapidly. Even in a full-term infant, however, the bones are composed chiefly of cartilage, or gristle, and as a result are soft. Should the fetus be born prematurely, the skull is unready for the pressures of birth, and the chances of brain damage are greatly increased. Furthermore, the prematurely born infant often has difficulty establishing respiration, and for this reason, the brain cells may be damaged by oxygen deprivation. Many more prematurely born children show behavioral symptoms of brain damage than do children born at full term. A very common symptom is cerebral palsy (6, 13, 82).

Early Deaths. In spite of medical progress in caring for prematurely born infants, the mortality rate is still very high. One-third of the deaths in the first year of life are among babies whose birth weight is less than 5½ pounds. It has been estimated that a premature infant has only one-ninth the chance for life that a full-term infant has.

Box 5-4

EFFECTS OF PREMATURITY ON LATER DEVELOPMENT

Physical Development

Premature babies are slower to reach the growth spurt characteristic of the early months of life, but by the end of the first year they have almost caught up to the norm for full-term babies.

Health

In their first year, prematures have more illnesses, especially respiratory and nasopharyngeal disturbances. As they grow older, they suffer slightly more from such physical defects as malnutrition, dwarfism, and obesity. The most serious defect associated with prematurity is eye damage resulting from anoxia.

Motor Control

Prematures sit, stand, and walk at a much later age than full-term babies, with the greatest retardation in those who were smallest at birth. As young children, they are less graceful in their movements.

Intelligence

More cases of serious mental deficiency are found among prematures than in the general population. For the most part, mental defects are found among those who suffered from cerebral hemorrhages at or immediately after birth.

Speech

Prematurely born children use baby talk longer and have more speech defects than full-term children. Stuttering is the most common speech defect.

Sensory Behavior

Premature infants are highly sensitive to sounds and noises. As they grow older, they are easily distracted by noises and are very sensitive to colors and moving objects.

Emotional Behavior

Some prematures are "gentle babies," but most are shy, petulant, irascible, and negativistic. *Nervous traits,* such as finger-sucking and nail-biting, and *behavior disorders,* such as temper outbursts and a tendency to cry frequently, are more common among prematures.

Social Adjustments

In general, prematurely born children make better adjustments in the early years of life than later. As babies, they tend to be shy, closely attached to their mothers, and more dependent than full-term babies of the same age. In the preschool and early elementary school years, they show more forms of problem behavior, especially feeding difficulties.

Survival is relatively rare when birth weight is 1,000 grams (2 pounds 3 ounces) or less. For infants whose weight is above this, the chances of survival vary according to birth weight. If the infant weighs more than 1,500 grams (3 pounds 5 ounces), its chances of survival are estimated to be four times as great as if its weight were 1,500 grams or less (73).

Long-term Consequences of Prematurity. Any child damaged during the birth process may suffer permanent ill effects from the damage. Children born at full term, however, are less likely to be damaged than those born prematurely.

Owing to lingering neurological immaturity or to brain damage at birth, prematurely born children often lag behind full-term children in academic achievement (2, 30, 99, 118, 123). If they lag behind to a "significant" degree by the time they are 8 years old, they may be regarded as an "academic 'high risk' group" (33). Prematures aged 12 to 13 have been reported to be backward in tests of reading and arithmetic achievement, and their grade placement has been found to be below age expectations (88, 118).

Parental Attitudes toward Prematures. The indirect damages of prematurity—unfavorable parental attitudes and associated behavior—can be as long-lasting as the direct effects and even more difficult to prevent. It is often impossible to separate the physical influences from the psychological, but there is ample evidence that many of the traits found among prematurely born children—the "prematurity syndrome," as it is often called—are psychological in origin.

It is unlikely that parents will treat their prematurely born child like a normal full-term infant. The elaborate precautions used in the hospital to ensure the baby's survival reinforce the parents' traditional belief that the child is different and therefore inferior. A study of babies under 4 pounds in weight at the time of birth showed that all parents experienced a "crisis" when the babies were finally large and healthy enough to be brought home. After facing this crisis, some parents made good adjustments to their parental roles. Others made poor adjustments, having negative feelings about their parental roles and scapegoating in order to free themselves from responsibility for the crisis. All showed concern about the financial problem prematurity brought them (21).

Fear of harming a prematurely born baby causes many parents to *understimulate* him, often even until he reaches school age. Furthermore, parental anxiety tends to make the young child nervous and afraid of himself. Not only is the child deprived of opportunities to develop his potential capacities, but he feels inadequate to use what opportunities are given. Undoubtedly, this accounts for some of the developmental lag of premature children.

When prematurely born babies make good adjustments, parents often push them in an attempt to close the gap between them and their contemporaries. At the same time, parents continue to be overprotective. This merely prolongs the unfavorable environmental conditions that do so much psychological damage. Being pushed always makes a child nervous. In addition, the child feels that the parents are unfair; one minute they are doing things for him, and the next minute they are criticizing him for not doing things for himself. Feelings of inadequacy, lack of self-confidence, resentments, and antagonisms are the inevitable results.

Until there is adequate scientific evidence that the age-old beliefs about prematurity are incorrect, it is unlikely that prematurely born children can escape the psychological damage stemming from unfavorable parental attitudes. That is the true significance—and misfortune—of the widely held belief that a prematurely born child is at a disadvantage from the very start of his life.

Developmental Status of Full-term Infants

To understand postnatal development, one must know what the status of the child is when he begins life outside the mother's body. The characteristics of the neonate can be divided into three categories: *appearance, helplessness,* and *individuality.* Newborn infants show distinct individual differences, and their differences tend to become greater as they adjust to postnatal life. Consequently, the description given will be of a typical or "average" newborn infant, not of any specific infant. Furthermore, the description applies to the normal full-term infant whose development before birth has covered approximately 280 days.

APPEARANCE

How does the full-term newborn infant look? The average weight is 7.5 pounds, and the average length is 19.5 inches. Weight ranges from 3 to 16 pounds;

length ranges from 17 to 21 inches. Male infants are generally slightly larger than female infants, but the differences are not so great between the sexes as within each sex group. Variations in birth size depend on many factors, the most important of which are shown in Box 5–5.

The physical proportions of the infant differ greatly from those of the adult, as may be seen in Figure 3–3. In the infant, the head is about one-fourth the entire body length, while in the adult, it is one-seventh. The greatest difference between the adult head size and the infant head size is in the area above the eyes, the cranial region. In the infant, the ratio between the cranium and face is 8:1, while in the adult it is 1:2. Often, the baby's head is slightly—and temporarily—misshapen.

The infant's face appears to be broad and short because of lack of teeth, the undeveloped jaws, and the flat nose. The arms, legs, and trunk are small in relation to the head. The abdominal region of the trunk is large and bulging, while the shoulders are narrow, just the opposite of adult proportions. The hands and feet are miniature—much too small for the rest of the body.

Typically, white babies have bluish-gray eyes, and nonwhite babies have dark brown eyes. Gradually the eyes change to whatever the permanent color will be. Though almost mature in size, they move uncontrolled in a meaningless fashion. The tear glands of the newborn are inactive. The neck is so short that it scarcely exists, and the skin covering it lies in deep folds or creases. A heavy growth of fine-textured hair often covers the head.

The muscles of the newborn are small, soft, and uncontrolled, with those of the legs and neck less developed than those of the arms and hands. The bones are soft and flexible. The flesh is firm and elastic, while the skin is soft and often blotchy, especially in the head region. Sometimes a soft, downy growth of hair is found on the body, mostly on the back, but this soon disappears.

Effect of Infant's Appearance on Parents. Parents with a romanticized notion of what a baby looks like may experience shock or disappointment when they first see their child. While they are not likely to verbalize these feelings, their anxious questions "Isn't he adorable?" or "Doesn't he look just like grandfather, the handsomest man in town?" give clues to what their real feelings are. Stone and Church (109) have remarked:

> *Many people, whose ideas . . . of what a newborn baby looks like are based on pictures that appear in advertising addressed to new parents, are surprised by their first actual view of a neonate. The idealized "newborn" babies shown in such advertising are probably two or three months old. Truth to tell, exciting though his newness may be, many a neonate begins on the unattractive side. Even for eager parents, there is often a discrepancy between the tiny, wet, sticky, often red and wizened creature of the first few days and the images formed in the months of hopeful, anxious waiting.*

Most infants begin to look better even before they leave the hospital. By the end of the period of the neonate, if they have made satisfactory adjustments to postnatal life, their appearance is vastly improved. Before the end of the second week of life, for example, the blotchy marks on their skin begin to disappear, their heads are less misshapen, their noses are less flat.

Although the infant's appearance improves within a relatively short time, the effect of his birth appearance on unprepared parents can be long-lasting. This emphasizes how unfortunate it is for parents-to-be to build up unrealistic expectations.

HELPLESSNESS

All newborn infants are helpless. The capacities of the human infant for independent living are so poorly developed at birth that he is the most helpless of all neonates. His helplessness, which is at first all-pervading, is in the long run an advantage. It enables the human infant to develop along lines that would be impossible in animals, for whom nature has a more rigid pattern of development. In time, the child will be able to make more varied responses than are possible among animals and, as a result, he can rise to a higher level.

Helplessness at any age originates either in an undeveloped condition of the body and nervous system, which makes learning impossible, or in a lack of opportunity to learn when a state of readiness exists. Both these causes of helplessness are operative in the newborn infant. How each contributes to his helplessness will be discussed in detail.

Inability to Maintain Homeostasis. Because of the undeveloped state of the autonomic nervous system at birth, the infant is unable to maintain homeostasis—the tendency of an organism to maintain within itself relatively stable conditions of temperature, chemical composition, or the like by means of its own regulatory mechanism. In the prenatal environment, homeostasis was maintained for the fetus by the mother's homeostasis. Now that he is on his own, his body must take over this responsibility.

Studies of the physiological functions of the newborn infant have shown how unstable they are. The *basal pulse rate* ranges, for example, from 130 to 150 beats per minute at birth and then drops to an average of 117 beats several days later. This compares with the average adult basal rate of 70 beats per minute (65). The *respiration rate* during the first week of life is 35 to 45 breathing movements per minute, compared with 18 at adulthood. Breathing is rapid, irregular, and abdominal in the newborn infant. The heart is small in comparison with the arteries, and so it must beat more rapidly to maintain normal *blood pressure. The body temperature* is higher and more variable in a healthy infant than in an adult (65, 83).

Sucking and *swallowing,* though possible at birth, are not well developed. At first, the infant sucks in small bursts of three of four sucks, often choking as he attempts to swallow what is in his mouth. Later, he sucks in longer and more efficient bursts of ten to thirty sucks, and there is less choking. Many newborns make sucking motions even when there is no nourishment available. This occurs more often when the infant is awake than when he is asleep. Both nutritive and nonnutritive sucking are more frequent when the infant is warmly bundled.

Because the stomach and intestines have different rates of emptying and because the infant has difficulty sucking and swallowing, *defecation* and *regurgitation* are frequent, and wheezing and colic are common. *Voidings* are variable in time and amount.

Perhaps in no area of body function is lack of homeostasis more marked than in *sleep.* Typically, the infant's sleep is broken by short waking periods caused by pain, hunger, and internal sources of discomfort. He sleeps lightly, can be wakened easily, and then falls to sleep easily.

Among newborn infants, two distinct patterns of sleep are common: *regular,* during which the breathing rhythm is smooth and even, and *irregular,* during which rapid, shallow excursions alternate with slow, deep excursions. In regular sleep, there are frequent spontaneous startles; otherwise the infant moves little. In irregular sleep, there are few spontaneous startles but many other movements ranging from kicking to twisting and writhing (121).

As motor activity uses up energy and as this tends to interfere with homeostasis, restriction of motor activity by swaddling increases the stability of the heart rate and produces a pacification of the general physiologic state. It also causes infants to sleep more and to sleep more quietly.

Inability to Control Motor Activity. To be independent, a person must be capable of voluntary activity—activity controlled by conscious desire. No infant is capable of this. His responses can only tenuously and with

Box 5–5

FACTORS INFLUENCING BIRTH SIZE

Length of Gestation

Postmature infants are larger, heavier, and better filled out than those born at full term. Slightly premature infants are deficient in fat, and thus look slightly withered and scrawny.

Maternal Diet

A significant correlation exists between the protein content of the mother's diet during the last months of pregnancy and the size of the infant at birth. The poorer the diet the smaller the infant, both in weight and length.

Family Economic Status

Economic status affects the quantity and quality of the maternal diet; thus, infants from poor families are usually slightly but significantly smaller than those from well-off families.

Ordinal Position

On the average, firstborn infants weigh less and are shorter than later-born infants in the same family.

Family Size

Later-born children in large families, especially if they are born soon after an older sibling, tend to be smaller than their older siblings. This is due to the general health condition of the mother.

Fetal Activity

Excessive fetal activity may cause the infant to be considerably underweight for his length. This will give him a scrawny look.

difficulty be related to the events in his environment. Since he behaves randomly, without goals, he is helpless. He is not inert, however; he is a moving, acting creature.

The motor activity of the newborn can be categorized roughly as either mass or specific. *Mass activity* includes general movements of the whole body. When one part of the body is stimulated, the whole body responds, though most profoundly in the area stimulated. Because of the neorological immaturity of the infant, mass activity is highly uncoordinated and diffuse and results in a great expenditure of energy. Not all parts of the infant's body are equally active. The greatest activity is in the trunk and legs, and the least is in the head. Mass activity increases in frequency as the infant adjusts to his postnatal environment.

Specific activity, which involves certain limited areas of the body, is in reality the outgrowth of mass activity. It is of two types: reflexes and general responses. The first reflexes to make their appearance are those which have distinct survival value—heart action, sneezing, breathing, and the patellar, pupillary, and digestive reflexes; the other reflexes in the human repertoire can be aroused within a few hours or days after birth.

General responses, the second type of specific activity, involve larger portions of the body than reflexes. Like reflexes, they are direct responses to either internal or external stimuli. Visual fixation on light; spontaneous eye movements; yawning; rhythmic mouthing; turning and lifting the head; random arm and hand movement; prancing, kicking, and stretching of the legs and feet; turning; and body jerks—these are just a few of the general responses which have been observed in the newborn infant.

There are wide and stable *differences* from one infant to another not only in general body movements but also in some specific movements, such as hand-mouth contacting and head turning. In a study of head turning among infants, three kinds of movement were observed. In the first, the infant turns his head to both sides of the body midline; in the second, the head does not cross the body midline and the movement is limited to a 90-degree arc; in the third, the head does not cross the body midline and the movement is limited to a 45-degree arc (111).

In the same infant there are also patterns and variations. For example, infants who are most active before birth are also most active after birth. There are variations in activity, however, at different times of the day, with the peak coming in the early morning and the quietest period at noon. Activity is greatest during crying, hunger, pain, and general bodily discomfort and least when the infant is asleep, is sucking, or has just been fed.

Environmental conditions also influence neonatal activity. Light and auditory stimuli, for example, increase the amount of activity, as do excessive clothing and coverings. Complicated deliveries result in decreased activity during the early days of postnatal life. And, finally, variations in activity may be caused by differences in tension due to the kinds of treatment newborn infants receive (25, 27, 58, 111, 115).

All movements made by the newborn infant, even the reflexes present at birth, are random and uncoordinated. Yet they are important because they are the basis from which the highly coordinated movements of the young child will develop.

Inability to Communicate. Lack of ability to communicate his needs and wants to others adds to the helplessness of the newborn infant. Owing to the uncoordinated state of his body, he cannot speak or point or use other gestures. The best he can do is cry. The *birth cry* is purely reflex. It is caused by air being drawn rapidly over the vocal cords, thus setting up vibrations in them.

The birth cry serves two purposes: to supply the blood with sufficient oxygen and to inflate the lungs, thus making breathing possible. The birth cry is thus not a true precursor of speech. Nor is there any indication that the birth cry is an expression of wrath at being dislodged from the safety and comfort of the womb, as Kant claimed. Instead, all indications point to the purely physiologic function of the birth cry.

Once the lungs are inflated, and breathing begins, *crying* comes from internal and external stimulation and is part of the pattern of generalized behavior characteristic of the newborn infant. Most crying during infancy occurs when the infant is hungry, in pain, or in a state of discomfort. Occasionally he cries from fatigue, from lack of exercise, or for unknown reasons.

During the first 24 hours after birth, the infant's cry may have different meanings, which can be determined from the pitch, intensity, and continuity of the cry. In general discomfort, for example, the cry is at first monotonous in pitch, staccato-like, and intermittent; then gradually, unless some relief is given, the cry becomes more insistent. Pain is characterized by a cry which rises in pitch. If pain is accompanied by increasing physical weakness, piercing tones give way to low moans. While variations in the tonal quality and intensity of crying increase its value as a form of communication, only persons familiar with an infant's cries can be expected to know what they mean.

Body activity of some sort generally begins when crying begins. In vigorous crying, every part of the body is thrown into action. (See Fig. 5–5.) The infant squirms, kicks, rolls his body, turns his head from side to side, and flexes and extends his arms, legs, fingers, and toes. This activity is a signal that the infant needs attention, and it thus serves as a form of language.

Studies of crying have revealed that the duration of crying lessens and the intervals between cries become shorter and less variable during the first 9 days of postnatal life. The more intense the stimulus, the louder and longer the cry (44, 84). Shedding of tears (lacrimation) during crying appears during the first day of life for many newborn infants and by the end of 5 days for most. It appears later in prematurely born infants (71, 79).

The infant is capable of another type of vocalization, *explosive sounds,* which are not unlike heavy breathing. They are uttered without intent and without meaning; they occur purely by chance whenever there is a contraction of the vocal muscles. Since these sounds are low in pitch and weak, compared with cries, they are often regarded as unimportant. In the long run, however, explosive sounds are far more important than cries. The explosive sounds are gradually strengthened, and during the second half of the first year, they develop into babbling, which in turn develops into speech.

Undeveloped State of Sense Organs. A fourth condition contributing to the helplessness of the newborn infant is the undeveloped state of his sense organs. This is especially true of the sense organs that are most important to independent behavior—the eyes and the ears.

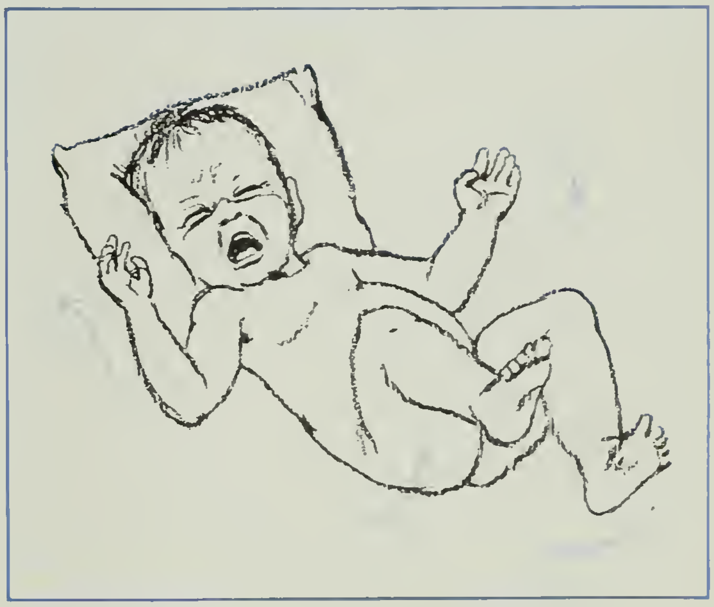
At birth, the sense organs are ready to function but some are more highly developed than others. Box 5–6 describes the status of the different sense organs at birth and the development that takes place during the period of infancy.

The evidence now available about the state of the sense organs at birth throws considerable doubt on Rank's theory of the birth trauma and on Kant's (and others') explanation of the meaning of the birth cry. Studies of sensitivity to pain show that during the birth process and immediately after birth, the sense organs for pain, though developed, are not functioning well enough for the fetus to experience pain from the pressure of the muscular contractions of the birth canal.

Studying sensitivity in the newborn is far more difficult than is usually recognized. *First,* sensitivities can best be studied by using introspective techniques. This is impossible before the child learns to speak. Consequently, when a stimulus is applied and the infant reacts, it is assumed that he is responding to it. *Second,* when the infant moves, he literally moves all over. Therefore, it is practically impossible to determine whether a reaction is a response to a specific stimulus or merely part of general mass activity. *Third,* stimuli must be kept weak enough to avoid the possibility of injuring the newborn child's delicate sense organs. Under such conditions, the absence of a response is not a foolproof criterion of insensitivity. It may only mean that the stimulus was too weak to elicit a response.

In view of these difficulties, present-day evidence about the state of development of the newborn infant's sense organs may not be completely accurate. It is quite possible that newborn infants have a greater capacity for sensory discrimination than current studies show. This is especially applicable to vision and hearing—the two areas where fear of possible damage to the delicate sense organs has been a serious obstacle to experimental research.

Figure 5–5. Crying in the newborn infant is accompanied by mass activity. (Adapted from Heredity and Prenatal Development, *a McGraw-Hill Text-Film.)*



Inability to Learn. Another condition contributing to the helplessness of the newborn child is his inability to learn. Studies of learning among neonates indicate that even the simplest form of learning—conditioning or learning by association—is too complex for an infant. For the most part, studies show that, with the possible exception of conditioning in feeding situations, conditioned responses are difficult to elicit and, when they do appear, they are unstable and of little permanent value (27, 50, 54, 64, 106).

Present information about the limited capacity of newborn children to learn casts doubt on Rank's birth trauma theory. It is questionable whether the newborn child can experience anxiety or have any memory of the birth shock. His brain, at the time of birth, is at such a low level of development that it is doubtful that memory or reasoning is present at all. It is known that brain cells cannot function in the low-oxygen environment of the uterus. Only after air breathing has supplied the brain with more highly oxygenated blood is there any evidence of consciousness. As air breathing normally does not begin until the cry has inflated the lungs—and this occurs after birth—one can logically conclude that the infant has no recollection of what happened during or before birth.

One can also conclude that a newborn infant or even a young baby cannot compare his present status with that which existed before he was born. *Only* if such a comparison could be made could there be anxiety and a longing—even though this longing were only subconscious—to return to the safety and security of the womb. Thus, it is quite unlikely that the infant can understand the change that takes place in the pattern of his life with birth.

Considering the undeveloped state of the fetal brain and autonomic nervous system, it is equally unlikely that an infant can experience any specific emotion—fear, anger, or anxiety—profoundly enough for it to have a lasting influence on his personality.

Effects of Helplessness on Parental Attitudes. Because a newborn infant's helplessness and dependency are appealing and because they make the child easy to manage, some parents get into the habit of waiting on the child hand and foot. This habit, once established, tends to persist long after infancy has passed and long after the child either needs or wants so much help. Sometimes a mother continues to wait upon her child simply because of selfishness or because she thinks that is what a "good mother" should do. It may give her great satisfaction to feel that she is indispensable to him.

Whatever the reason for the parents' attitude, it is damaging to a child's development. It deprives the child of opportunities to learn the things that other children his age are learning. His failure to master the developmental tasks appropriate for his age means that he will make poor social adjustments, and this leads to poor personal adjustments.

Furthermore, a child resents being frustrated in his attempts to learn. The more he is frustrated, the more angry, resistant, and negativistic he becomes. The parents cannot understand this kind of behavior, and the parent-child relationship deteriorates.

INDIVIDUALITY

No two newborn infants are exactly alike in appearance or behavior. Each starts life with an individuality that will continue to manifest itself as his hereditary potentials unfold. Individuality results partly from hereditary differences and partly from different prenatal environments and birth experiences.

Individuality is even apparent in twins. A longitudinal study of twins found that individuality was caused, in part, by differences in birth weight. The smaller twin experienced more adjustment difficulties, and these were reflected in sleeping and feeding problems, temper tantrums, and irritability. As a result, the twins developed markedly different personality patterns (97).

Areas of Individuality. Studies of newborn children report individual differences in several areas of development. In *appearance*, the only thing that all newborn infants have in common is their smallness and top-heaviness. Some are chubby and cherubic in appearance, while others look wizened and senile. Not all newborn infants feel the same when they are held. As Stone and Church have remarked, some are "compactly and comfortably curled, like a kitten, others sprawl like a bundle of loosely joined sticks, still others hold themselves tense and stiff" (109).

Newborn infants vary greatly in their ability to *maintain homeostasis*. This contributes to individuality in adjustment, especially in response to food, patterns of sleep, crying, motor activities, and need for attention. Some infants, for example, are able to take nourishment and keep it down from the very beginning, with the result that they lose little of their birth weight. Others have difficulty adjusting to sucking and swallowing and, consequently, may lose a frightening amount of weight.

Individuality is even more strikingly illustrated in *motor activity*. Some infants show slow, poorly developed reflex responses, while others have reflexes similar in form—though slower in rate—to those of older children. Marked variations also occur in mass activity, with some infants in constant motion, even in sleep, while others are relatively placid.

There is no area in which individuality expresses itself as forcefully as in *crying*. This is greatly influenced by the infant's birth experience. In a quick, explosive delivery, for example, the cry is sharp and deep; in premature births or when the infant is in poor condition, the cry is like a little moan. Prolonged labor, resulting in the exhaustion of the infant, generally causes a weak, short, intermittent cry. Infants damaged prenatally or at birth have cries that differ in pitch, volume, rhythm, and accentual character from those of normal infants.

The amount of crying as well as the tonal quality is an individual characteristic. Some infants are "good as gold," crying only infrequently and for short intervals. Others seem to be angry or frustrated all the time, crying incessantly and at the top of their lungs. As a general rule, infants delivered by caesarean section cry less than those born spontaneously or delivered with the aid of instruments. There is little evidence, however, that the amount of crying is influenced by the length of labor (1, 94).

Effects of Individuality on Parental Attitudes. Since newborn infants differ from one another in so many ways, one cannot logically expect them to behave alike. Most parents do, however. They expect a second-born child to behave the way they *remember* their

Box 5-6

SENSE ORGAN DEVELOPMENT OF THE NEWBORN

Smell

The cells for smell, at the upper interior part of the nose, are well developed at birth. That the infant's smell is keen is shown by crying, head turning, and attempts to withdraw from unpleasant stimuli and by sucking in response to pleasant stimuli.

Taste

The cells for taste, located on the surface of the tongue, are well developed at birth and are as numerous as they will be later in life. Because of the well-developed sense of smell, which supplements taste reactions, the infant can distinguish between pleasant and unpleasant taste stimuli. He shows this by crying and squirming when unpleasant stimuli are placed on his tongue and by relaxing the body and sucking when pleasant stimuli are presented.

Organic Sensitivities

Hunger and thirst are well developed at birth. Hunger contractions of the stomach, which produce a painful sensation in the abdominal region, occur within the first day of life.

Skin Sensitivities

The sense organs for touch, temperature, and pressure are well developed at birth and lie close to the surface of the skin. Sensitivity to touch and pressure is greater in the face region, especially the lips, than in the trunk, thighs, and arms. Sensitivity to pain is slower in developing and is more adversely influenced by maternal medication during childbirth. The pain threshold normally drops during the first 4 days of life. All skin sensitivities are more highly developed in female than in male neonates.

Vision

The cones in the retina are small and poorly developed, suggesting that neonates are color blind. The rods are better developed but are limited to a small area surrounding the fovea, thus restricting the visual field. The black-and-white vision of the infant is blurred because the muscles that control eye movement are too small and weak to enable both eyes to focus on the same object simultaneously. Optic nystagmus—the ability to follow a moving object and then move the eyes backwards—appears in the first week of life.

Hearing

Hearing is the least developed of all the senses at birth. There are two reasons: *First*, owing to the stoppage of the middle ear with amniotic fluid, sound waves cannot penetrate to the sense cells in the inner ear, and the infant is unable to hear for several hours or days after birth. *Second*, the sense cells in the inner ear are still only partially developed. Low-frequency sounds are more effective in soothing crying and stopping nonnutritive sucking than are high-frequency sounds. Most infants can discriminate the location of sound within the first 3 to 4 days of life.

older child behaving. Many a mother has steeped herself in "baby-care" information from books, magazines, and newspapers and has learned what the "norms" are. These she uses as a measuring rod for her own newborn infant. If he conforms to these norms, she feels that all is well; if he is ahead of them, she is smugly satisfied that he is superior; but if he falls below the norms, she becomes panicky and is convinced that all is not well.

Some specific examples will serve to show how parental attitudes are influenced by individuality in behavior patterns among newborn infants. A baby's crying is, to most parents, a signal that something is wrong. They compare their infant's cries with their memories of the cries of earlier-born children or of other infants in the hospital nursery. If the child cries more or more loudly than others or if he sounds weak and worn out, they inevitably conclude that something is the matter.

When he refuses to nurse or when he regurgitates what nourishment he takes, the mother wonders if her milk or the formula given him in a bottle is "right" for him. Little does she suspect that her own tenseness and nervousness may be interfering with the quality of her milk or upsetting her baby. And it does not ease her concern to be told by other mothers how easily and quickly their babies have adjusted.

Unless a mother is seriously ill, she will want to look at her baby in his bassinet in the maternity nursery. This often proves to be a traumatic experience. After seeing her baby in the privacy of her room and convincing herself that "all babies look that way," she may discover that other babies in the nursery are much prettier than hers. In fact, he may be the ugliest. The scars of birth, which still stand out on him, may have already disappeared from those who were born earlier. The father's pride may likewise be dimmed when he peers through the glass window of the nursery to spot his child and, in the process of doing so, looks at the other babies. He may overhear the comment of another parent about the baby who "looks like a little ape," only to discover that the comment was made about his child.

Such experiences cannot fail to color parental attitudes, and they, in turn, affect parental behavior. Concern about their child "being different" often leads parents to suspect that he is not normal. Back of this concern is the belief that *individuality and abnormality go hand in hand.* Even when a doctor assures the anxious parents that all is well, their concern may be intensified by an increase in crying and adjustment difficulties when the infant is taken home. As a result of this concern, parents become oversolicitous and overprotective—patterns of parental behavior which may become habitual.

Highlights of Chapter 5

1. Old wives' tales about the effects of the birth experience on the infant have been reinforced by theories of philosophers and scientists about the traumatic effects of birth.

2. Four major adjustments must be made by the newborn infant, and made quickly, if he is to survive: adjustments to temperature change, to breathing, to taking nourishment, and to elimination.

3. Infancy is subdivided into two periods: the period of the partunate, covering 15 to 30 minutes after birth, and the period of the neonate, covering approximately 2 weeks.

4. The three major indications that adjustment to postnatal life is difficult are loss of weight, disorganized behavior, and infant mortality.

5. There are four types of birth—spontaneous, breech, transverse presentation, and caesarean section—each of which affects the developmental pattern differently.

6. Birth damage, due to *(a)* injuries to the brain or nervous system from pressure during the birth process and to *(b)* damage to the brain cells from anoxia, or interruption of the oxygen supply to the brain, affects postnatal development. The effects may be temporary or permanent.

7. To date, scientific studies have found no justification for the traditional belief that there are certain "best times" to be born.

8. Slight prematurity—especially common in firstborns and multiple births—retards the developmental pattern for only the first 2 or 3 years of life. Pronounced prematurity is usually accompanied by brain damage which affects the child's entire developmental pattern.

9. Parental attitudes toward prematurity are more often responsible for the effects of prematurity on the child's adjustments to life than is the prematurity itself.

10. Normally, the infant is homely, owing to facial and body disproportions and to the temporary scars of birth. For parents and siblings who have romanti-

cized concepts of a newborn infant, this is likely to be a traumatic experience, affecting in some degree their future attitudes toward the child.

11. The helplessness of the human infant comes from the infant's inability to maintain homeostasis, to control motor activity, to communicate, and to learn, as well as from the undeveloped state of the sense organs.

12. Because helplessness makes the infant appealing and easy to manage, some parents encourage dependency long after the child is ready to become relatively independent.

13. All infants, even identical multiple births, show individuality from the moment of birth, not only in appearance but also in methods of adjusting to postnatal life.

14. Unless parents recognize that individuality is normal and universal, they are likely to be concerned about any infantile behavior that deviates from what they regard as "normal."

Bibliography

1. Aldrich, C. A., C. Sung, and C. Knop: The crying of newly born babies. *J. Pediat.*, 1945, **26**, 313–326; **27**, 89–96. 429–435.
2. Amiel-Tison, C.: Neurological evaluation of the maturity of newborn infants. *Arch. Dis. Childh.*, 1968, **43**, 89–93.
3. Apgar, V., D. A. Holaday, L. S. James, I. M. Weisbrot, and C. Berrein: Evaluation of the newborn infant: Second report. *J. Amer. med. Ass.*, 1958, **168**, 1985–1988.
4. Armstrong, H. G.: A comparison of the performance of summer and autumn-born children at seven and sixteen. *Brit. J. educ. Psychol.*, 1966, **36**, 72–76.
5. Babson, S. G., and J. Kangas: Preschool intelligence of undersized term infants. *Amer. J. Dis. Children*, 1969, **117**, 553–557.
6. Bacola, E., F. C. Behrle, L. de Schweinitz, H. C. Miller, and M. Mira: Perinatal and environmental factors in late neurogenic sequelae. *Amer. J. Dis. Children*, 1966, **112**, part 1, 359–368; part 2, 369–374.
7. Bailar, J. C., and J. Gurian: The medical significance of date of birth. *Eugen. Quart.*, 1967, **14**, 89–102.
8. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders*, 3d ed. Philadelphia: Saunders, 1966.
9. Bell, R. Q., and J. F. Darling: The prone head reaction in the human neonate: Relation with sex and tactile sensitivity. *Child Develpm.*, 1965, **36**, 943–949.
10. Berglund, G. W.: A note on intelligence and season of birth. *Brit. J. Psychol.*, 1967, **58**, 147–151.
11. Blauvelt, H.: Differential latency of oral responses on the first day of life. *J. genet. Psychol.*, 1964, **104**, 199–205.
12. Bowes, W. A., Y. Brackbill, E. Conway, and A. Steinschneider: The effects of obstetrical medication on fetus and infant. *Monogr. Soc. Res. Child Develpm.*, 1970, **35**, no. 4.
13. Braine, M. D. S., C. B. Heimer, H. Wortis, and A. M. Freedman: Factors associated with impairment of the early development of prematures. *Monogr. Soc. Res. Child Develpm.*, 1966, **31**, no. 4.
14. Brazelton, T. B.: Psychophysiologic reactions in the neonate. II. Effect of maternal medication on the neonate and his behavior. *J. Pediat.*, 1961, **58**, 513–518.
15. Brody, J. E.: Study finds smoking can imperil fetus. *The New York Times*, Apr. 11, 1970.
16. Brody, J. E.: Newborn child's health linked by study to weight of mother. *The New York Times*, Apr. 16, 1970.
17. Broussard, E. R., and M. S. S. Hartner: Maternal perception of the neonate as related to development. *Child Psychiat. & Hum. Develpm.*, 1970, **1**, 16–25.
18. Brown, A. M., R. E. Stafford, and S. G. Vandenberg: Twins: Behavior differences. *Child Develpm.*, 1967, **38**, 1055–1064.
19. Brown, J. L.: States in newborn infants. *Merrill-Palmer Quart.*, 1964, **10**, 313–326.
20. Caldwell, B. M.: Assessment of infant personality. *Merrill-Palmer Quart.*, 1962, **8**, 71–81.
21. Caplan, G.: Patterns of parental response to the crisis of premature birth. *Psychiatry*, 1960, **23**, 365–374.
22. Caputo, D. V., and W. Mandell: Consequence of low birth weight. *Develpm. Psychol.*, 1970, **3**, 363–383.
23. Carmichael, L.: The onset and early development of behavior. In P. H. Mussen (ed): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 1., pp. 447–563.
24. Churchill, J. A., L. Willerman, J. Grisell, and M. A. Ayers: Effect of head position at birth on WISC verbal and performance IQ. *Psychol. Rep.*, 1968, **23**, 495–498.
25. Cobb, K., R. Goodwin, and E. Saelens: Spontaneous hand positions of newborn infants. *J. genet. Psychol.*, 1966, **108**, 225–237.
26. Cohen, D. J.: The crying newborn's accommodation to the nipple. *Child Develpm.*, 1967, **38**, 89–100.
27. Connolly, K., and P. Stratton: An exploration of some parameters affecting classical conditioning in the neonate. *Child Develpm.*, 1969, **40**, 431–441.
28. Cravioto, J.: Malnutrition and behavioral development in the preschool child. *Courrier*, 1966, **16**, 117–127.
29. Crelin, E. L.: *Anatomy of the newborn: An atlas.* Philadelphia: Lea & Febiger, 1969.
30. Cutler, R., C. B. Heimer, H. Wortis, and A. M. Freedman: The effects of prenatal and neonatal

complications on the development of premature children at two and one-half years of age. *J. genet. Psychol.*, 1965, **107,** 261–276.

31. Davids, A., and R. H. Holden: Consistency of maternal attitudes and personality from pregnancy to eight months following childbirth. *Develpm. Psychol.*, 1970, **2,** 364–366.
32. Davies, A. D. M.: Season of birth, intelligence and personality measures. *Brit. J. Psychol.*, 1964, **55,** 475–476.
33. deHirsch, K., J. J. Jamsky, and W. S. Langford: The oral language performance of premature children and controls. *J. speech hear. Disord.*, 1964, **29,** 60–69.
34. Demarest, R. J., and J. J. Sciarra: *Conception, birth and contraception.* New York: McGraw-Hill, 1969.
35. Drillien, C. M.: School disposal and performance for children of different birth weight born 1953–1960. *Arch. Dis. Childh.*, 1969, **44.** 562–570.
36. Dubignon, J., D. Campbell, M. Curtis, and M. W. Partington: The relation between laboratory measures of sucking, food intake, and perinatal factors during the newborn period. *Child Develpm.*, 1969, **40,** 1107–1120.
37. Edwards, N.: The relationship between physical condition immediately after birth and mental and motor performance at age four. *Genet. Psychol. Monogr.*, 1968, **78,** 257–289.
38. Elder, M. S.: The effects of temperature and position on the sucking pressure of newborn infants. *Child Develpm.*, 1970, **41,** 95–102.
39. Emde, R. N., and K. L. Koenig: Neonatal smiling and rapid eye movement states. *J. Amer. Acad. child Psychiat.*, 1969, **8,** 57–67.
40. Engen, T., and L. P. Lipsitt: Decrement and recovery responses to olfactory stimuli in the human neonate. *J. comp. physiol. Psychol.*, 1965, **59,** 312–316.
41. Falkner, F.: Infant mortality: An urgent national problem. *Children*, 1970. **17,** no. 3, 83–87.
42. Fantz, R. L.: Pattern vision in newborn infants. *Science*, 1963, **140,** 296–297.
43. Farley, F. H.: Season of birth, intelligence and personality. *Brit. J. Psychol.*, 1968, **59,** 281–283.
44. Fisichelli, V. R., and S. Karelitz: The effect of stimulus intensity on induced crying activity in the neonate. *Psychonomic Sci.*, 1969, **16,** 327–328.
45. Grimm, E. R., and W. R. Venet: The relationship of adjustment and attitudes to the course and outcome of pregnancy. *Psychosom. Med.*, 1966, **28,** 34–49.
46. Hammond, J.: Hearing and response in the newborn. *Develpm. Med. child Neurol.*, 1970, **12,** 3–5.
47. Haynes, H., B. L. White, and R. Held: Visual accommodation in human infants. *Science*, 1965, **148,** 528–530.
48. Hobbs, D. E.: Transition to parenthood: A replication and an extension. *J. Marriage & Family* 1968, **30,** 413–417.
49. Honzik, M. P., J. J. Hutchings, and S. R. Burnip: Birth record assessments and test performance at eight months. *Amer. J. Dis. Children*, 1965, **109,** 416–426.
50. Horowitz, F. D.: Infant learning and development: Retrospect and prospect. *Merrill-Palmer Quart.*, 1968, **14,** 101–120.
51. Hunt, E.: Infant mortality trends and maternal and infant care. *Children*, 1970, **17,** no. 3, 88–90.
52. Hutt, S. J., C. Hutt, H. G. Lenard, H. V. Bernuth, and W. J. Muntjewerft: Auditory responsivity in the human neonate. *Nature*, 1968, **218,** 888–890.
53. James, W.: *The principles of psychology.* New York: Holt, 1890.
54. Kagan, J., and M. Lewis: Studies of attention in the human infant. *Merrill-Palmer Quart.*, 1965, **11,** 95–127.
55. Kant, I.: *Critique of practical reason and other works on the theory of ethics*, 6th ed. London: Longmans, 1963.
56. Karelitz, S., V. R. Fisichelli, J. Costa, R. Karelitz, and L. Rosenfeld: Relation of crying activity in early infancy to speech development and intellectual development at age three years. *Child Develpm.*, 1964, **35,** 769–777.
57. Kawi, A. A., and B. Pasamanick: Prenatal and paranatal factors in the development of childhood reading disorders. *Monogr. Soc. Res. Child Develpm.*, 1959, **24,** no. 4.
58. Kessen, W., M. H. Haith, and P. H. Salapatek: Human infancy: A bibliography and guide. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 1, pp. 287–445.
59. Klatskin, E. H., M. E. McGarry, and M. S. Stewart: Variability in developmental test patterns as a sequel to neonatal stress. *Child Develpm.*, 1966, **37,** 819–826.
60. Korner, A. F.: REM organization in neonates. *Arch. gen. Psychiat.*, 1968, **19,** 339–340.
61. Korner, A. F.: Neonatal startles, smiles, erections and reflex sucks as related to state, sex, and individuality. *Child Develpm.*, 1969, **40,** 1039–1053.
62. Leventhal, A. S., and L. P. Lipsitt: Adaptation, pitch discrimination and sound localization in the neonate. *Child Develpm.*, 1964, **35,** 759–767.
63. Lindzey, G., D. T. Lykken, and H. D. Winston: Infantile trauma: Genetic factors and adult temperament. *J. abnorm. soc. Psychol.*, 1960, **61,** 7–14.
64. Lipsitt, L. P.: Learning processes of human newborns. *Merrill-Palmer Quart.*, 1966, **12,** 45–71.
65. Lipton, E. L., A. Steinschneider, and J. B. Richmond: Autonomic function in the neonate. *Psychosom. Med.*, 1960, **22,** 57–67.
66. Lynn, R., and B. Hayes: Some observational comparisons of tobacco consumption and personality. *J. soc. Psychol.*, 1969, **79,** 13–17.
67. Martin, P. C., and E. L. Vincent: *Human development.* New York: Ronald, 1960.
68. Martindale, C., and F. W. Black: Season of birth and intelligence. *J. genet. Psychol.*, 1970, **117,** 137–138.
69. McDonald, R. L.: Lunar and seasonal variations in obstetric factors. *J. genet. Psychol.*, 1966, **108,** 81–87.
70. McDonald, R. L.: The role of emotional factors in obstetric complications: A review. *Psychosom. Med.*, 1968, **30,** 222–237.
71. McGrade, B. J.: Newborn activity and emotional response at eight months. *Child Develpm.*, 1968, **39,** 1247–1252.
72. Meyerowitz, J. H.: Satisfaction during pregnancy. *J. Marriage &*

Family, 1970, **32**, 38–42.

73. Montagu, A.: *Prenatal influences.* Springfield, Ill.: Charles C Thomas, 1962.

74. Moss, H. A.: Methodological issues in studying mother-infant interaction. *Amer. J. Orthopsychiat.*, 1965, **35**, 482–486.

75. Ojha, A. B., R. P. Kelvin, and C. J. Lucas: A note on season of birth and intelligence. *Brit. J. educ. Psychol.*, 1966, **36**, 94–95.

76. Orme, J. E.: Ability and season of birth. *Brit. J. Psychol.*, 1965, **56**, 471–475.

77. Ottinger, D. R., and J. E. Simmons: Behavior of human neonates and prenatal maternal anxiety. *Psychol. Rep.*, 1964, **14**, 391–394.

78. Pedersen, F. A., and R. Q. Bell: Sex differences in preschool children without histories of complications of pregnancy and delivery. *Develpm. Psychol.*, 1970, **3**, 10–15.

79. Penbharkkul, S., and S. Karelitz: Lacrimation in the neonatal and early infancy period of premature and full-term infants. *J. Pediat.*, 1962, **61**, 859–863.

80. Pidgeon, D. A.: Date of birth and scholastic performance. *Educ. Res.*, 1965, **8**, 3–7.

81. Pohlman, E.: Timing of first births: A review of effects. *Eugen. Quart.*, 1968, **15**, 252–263.

82. Polani, P. E.: Prematurity and "cerebral palsy." *Brit. med. J.*, 1958, **2**, 1497–1499.

83. Pratt, K. C.: The neonate. In L. Carmichael (ed.): *Manual of child psychology*, 2d ed. New York: Wiley, 1954, pp. 215–291.

84. Prechtl, H. F. R., K. Theorell, A. Gramsbergen, and J. Land: A statistical analysis of cry patterns in normal and abnormal newborn infants. *Develpm. Med. & child Neurol.* 1969, **11**, 142–152.

85. Rank, O.: *The trauma of birth.* New York: Harcourt, Brace & World, 1929.

86. Richmond, J. B.: Observations of infant development: Clinical and psychological aspects. *Merrill-Palmer Quart.*, 1964, **10**, 95–101.

87. Riker, A.: New parent blues. *Child & Family*, 1967, **6**, no. 2, 10–17.

88. Robinson, N. M., and H. B. Robinson: A follow-up study of children of low birth weight and control children at school age. *Pediatrics*, 1965, **35**, 425–433.

89. Rosenblith, J. F.: Prognostic value of neonatal assessment. *Child Develpm.*, 1966, **37**, 623–631.

90. Rosengren, W. R.: Some social psychological aspects of delivery room difficulties. *J. nerv. ment. Dis.*, 1961, **132**, 515–521.

91. Rossi, A. S.: Transition to parenthood. *J. Marriage & Family*, 1968, **30**, 29–39.

92. Rovee, C. K.: Psychological scaling of olfactory response to aliphetic alcohol in human neonates. *J. exp. child Psychol.*, 1969, **7**, 245–254.

93. Rubin, E.: The sex ratio at birth. *Amer. Statistician*, 1967, **21**, 45–48.

94. Ruja, H.: The relation between neonate crying and the length of labor. *J. genet. Psychol.*, 1948, **73**, 53–55.

95. Ruskell, G. L.: Some aspects of vision in infants. *J. Amer. optometric Ass.*, 1969, **40**, 434.

96. Sameroff, A. J.: The components of sucking in the human newborn. *J. exp. child Psychol.*, 1968, **6**, 607–623.

97. Scheinfeld, A.: *Twins and supertwins.* Philadelphia: Lippincott, 1967.

98. Schwartz, P.: Birth injuries of the newborn. *Arch. Pediat.*, 1956, **73**, 429–450.

99. Shipe, D., S. Vanderberg, and R. D. B. Williams: Neonatal Apgar ratings as related to intelligence and behavior in preschool children. *Child Develpm.*, 1968, **39**, 861–866.

100. Simpson, W. J.: A preliminary report on cigarette smoking and the incidence of prematurity. *Amer. J. Obstet. Gynaec.*, 1957, **73**, 808–815.

101. Singer, J. E., M. Westphal, and K. R. Niswander: Sex differences in the incidence of neonatal abnormalities and abnormal performance in early childhood. *Child Develpm.*, 1968, **39**, 103–112.

102. Siqueland, E. R.: Reinforcement patterns and extinction in human newborns. *J. exp. child Psychol.*, 1968, **6**, 431–442.

103. Smith, C. A.: The first breath. *Scient. American*, 1963, **209**, no. 4, 27–35.

104. Solkoff, N., S. Yaffe, D. Weintraub, and B. Blase: Effects of handling on the subsequent development of premature infants. *Develpm. Psychol.*, 1969, **1**, 765–768.

105. Sontag, L. W.: Implications of fetal behavior for adult personalities. *Ann. N. Y. Acad. Sci.*, 1966, **134**, 782–786.

106. Stechler, G.: A longitudinal follow-up of neonatal apnea. *Child Develpm.*, 1964, **35**, 333–348.

107. Steinschneider, A.: Sound intensity and respiratory responses in the neonate. *Psychosom. Med.*, 1968, **30**, 534–541.

108. Stern, E., A. H. Parmelee, Y. Akiyam, M. A. Schultz, and W. H. Wenner: Sleep cycle characteristics in infants. *Pediatrics*, 1969, **43**, 65–70.

109. Stone, L. J., and J. Church: *Childhood and adolescence*, 2d ed. New York: Random House, 1968.

110. Thoms, H.: *Childbirth with understanding: A prepared childbirth program with rooming-in.* Springfield, Ill.: Charles C Thomas, 1962.

111. Turkewitz, G., E. W. Gordon, and H. G. Birch: Head turning in the human neonate: Spontaneous patterns. *J. genet. Psychol.*, 1965, **107**, 143–158.

112. Turkewitz, G., T. Moreau, L. Davis, and H. G. Birch: Factors affecting lateral differentiation in the human newborn. *J. exp. child Psychol.*, 1969, **8**, 483–493.

113. Waldrop, M. F., and R. Q. Bell: Effects of family size and density on newborn characteristics. *Amer. J. Orthopsychiat.*, 1966, **36**, 544–550.

114. Walk, R. B.: Monocular compared to binocular depth perception in human infants. *Science*, 1968, **162**, 473–475.

115. Walters, E. C.: Prediction of postnatal development from fetal activity. *Child Develpm.*, 1965, **36**, 801–808.

116. Weller, G. M., and R. Q. Bell: Basal skin conductance and neonatal state. *Child Develpm.*, 1965, **36**, 647–657.

117. Wickelgren, L. W.: The ocular response of human newborns to intermittent visual movement. *J. exp. child Psychol.*, 1969, **8**, 469–482.

118. Wiener, G., R. V. Rider, W. C. Oppel, and P. A. Harper: Correlates of low birth weight: Psychological status at eight to ten years of age. *Pediat. Res.,* 1968, **2,** 110–118.

119. Willie, C. V., and W. B. Rothney: Racial, ethnic, and income factors in the epidemiology of neonatal mortality. *Amer. Sociol. Rev.,* 1962, **27,** 522–526.

120. Windle, W. F.: Neuropathology of certain forms of mental retardation. *Science,* 1963, **140,** 1186–1189.

121. Wolff, P. H., and M. A. Simmons: Nonnutritive sucking and response thresholds in young infants. *Child Develpm.,* 1967, **38,** 631–638.

122. Wooley, P. V., and L. Q. Valdecanas: Growth of premature infants. *Amer. J. Dis. Children,* 1960, **90,** 642–647.

123. Wortis, H., and A. Freedman: The contribution of social environment to the development of premature children. *Amer. J. Orthopsychiat.,* 1965, **35,** 57–68.

124. Zuckerman, M., J. I. Nurnberger, S. H. Gardiner, J. M. Vandiveen, B. H. Barrett, and A. den Breeijen: Psychological correlates of somatic complaints in pregnancy and difficulty in childbirth. *J. consult. Psychol.,* 1963, **27,** 324–329.

E MOLNAR

CHAPTER SIX Physical Development

PHYSICAL DEVELOPMENT is one aspect of development. To get a complete picture, one must understand how children develop physically as well as psychologically. Physical development influences behavior both directly and indirectly. *Directly,* it determines what the child can do. If he is well developed for his age, he will be able to compete on equal terms with his peers in games and sports. If not, he will be handicapped in competition with them and may be excluded from their games. How he feels at the moment—whether he is well or tired or ill—likewise has a direct effect on the way he reacts to people and situations.

Indirectly, physical development influences attitudes toward self and others. These in turn are reflected in the kind of adjustments one makes. A child who is markedly overweight, for example, soon discovers that he cannot keep up the pace set by his thinner age-mates, and this often leads to a feeling of personal inadequacy. If his age-mates refuse to play with him because he is too slow, feelings of martyrdom will be added to feelings of inadequacy. Realization of how others feel about his size and appearance has a marked influence on his self-concept.

To understand the interaction between physical development and behavior, one must know what the normal pattern of physical development is and what effects this has on the behavior characteristically found at different ages. Such knowledge will help one understand the differences *among* children as well as the changes that take place in the *same* child at different ages and under different circumstances. A little child, for example, feels shy in the presence of adults and inferior in the presence of bigger children. By contrast, he feels at ease and behaves in a relaxed, natural way in the presence of children his own size or slightly smaller. Similarly, with increasing strength a child will react more confidently to a bully than he does when he is small and recognizes that his lack of strength puts him at a disadvantage.

One should also know what causes deviant physical development. Any deviation has a direct effect on a child's behavior as well as a profound indirect effect on his attitude toward himself and the attitudes of others toward him. A physically handicapped child can engage only in those play activities in which his handicap is not an obstacle. How his age-mates react to his handicap will have a pronounced influence on his behavior. Their favorable reaction will go a long way toward developing in him attitudes which will contribute to good social and personal adjustment, and vice versa.

Importance of Normal Physical Development

Normal physical development influences behavior in four major areas.

First, the development of the nervous system and the brain brings about new patterns of behavior. The emotional behavior of the child is directly related to his ability to perceive meanings in situations. The degree of social acceptance he enjoys is related to his ability to understand the thoughts, feelings, and emotions of others.

Second, muscle growth brings changes in motor capacities and in the number and kinds of activities the child can enjoy, especially games and sports.

Third, changes in the functioning of the endocrine glands result in new patterns of behavior. At puberty, for example, the child begins to like members of the opposite sex; he becomes preoccupied with looks and dress.

Fourth, behavior is influenced by one's general physical condition, which is dependent upon a balanced functioning of the different parts of the body. This balanced functioning results in homeostasis—normal blood sugar, water balance, rate of oxygen utilization, and so forth. This is achieved by the regulatory action of the central and autonomic nervous systems and by the endocrine system. The glands of the endocrine system normally produce chemical secretions or "hormones" in just the right amount to maintain a steady internal environment.

EFFECTS OF DEVIANT PHYSICAL DEVELOPMENT

The importance of normal development is emphasized by studies of the effects of deviant development. A few specific examples will illustrate the effects deviant physical development has on the child's behavior.

Deviations in Size. Body size and shape influence the child's physical performance. Thin boys of average height, for example, perform better than boys of medium physique or above-average height. Those who are tall and obese are the poorest performers of all. Marked deviations in size also affect the child's social behavior and acceptance by his peers. The obese child loses out in active play and, as a result, misses many opportunities to learn the skills essential to social success.

Disturbances in Homeostasis. The malfunctioning of an organ upsets the body's homeostasis and results in behavioral changes. The greater the disturbance to body balance, the more deviant the behavior. Reduction in the amount of oxygen in the inspired air, as in an attack of asthma, for example, leads to emotional outbursts, loss of critical ability, lack of concentration, and reduction in the speed and quality of mental work. A drop in blood-sugar level affects mental activities and leads to alterations in mood, irritability, and vague feelings of apprehension. An abnormal rise in the blood-sugar level results in depressive mental states.

A common temporary upset in body balance comes from high fever. This is reflected in mental and emotional confusion, irrational and irascible behavior, and a tendency to resist aggressively any suggestions from others. As the fever subsides, so do the behavioral changes that accompanied it.

Malnutrition. Malnutrition, especially when prolonged and severe, makes the child apathetic, depressed, irritable, undependable, and nervous. Nutritional anemia, resulting more often from emotional and social problems than from the unavailability of food, causes heightened emotional tension. There is also evidence that severe malnutrition, especially during the early years of life when the brain cells are growing rapidly, affects intelligence and intellectual performance. Recovery from malnutrition is usually marked by an improvement in IQ and in academic work (19, 28).

Glandular Imbalance. An excess or a gross deficiency of the hormones produced by the glands of the endocrine system during the growth years is likely to lead to physical deviations and to changes in intelligence and personality. Mild thyroid deficiency, for example, will cause lethargy, lack of vitality, and general fatigue accompanied by a tendency to be irascible, depressed, distrustful, and melancholy. An excess of thyroxin—the hormone from the thyroid glands—leads to an increase in the tempo of the bodily processes and to restlessness, excitability, anxiety, distractibility, nervous tension, and wide swings in mood.

Physical Growth Cycles

Physical growth is rhythmic, not regular. This means that a child does not gain a given number of pounds annually or grow a given number of inches. Instead, growth comes in cycles or waves—"periods" or "phases." The cycles are orderly and predictable, though the tempo varies from child to child, with some children growing at a slow rate and others at a normal or rapid rate. Each child is fairly consistent, showing a constant tendency toward earliness or lateness in reaching critical points.

MAJOR GROWTH CYCLES

Studies of growth show that there are four distinct periods, two characterized by slow growth and two by rapid growth. From birth to 2 years, there is rapid growth. This is followed by a period of slow growth up to the time of puberty, or sexual maturing, beginning usually between the eighth and eleventh years. From then until 15 or 16 years, there is rapid growth, and this is followed by a period of fairly abrupt tapering off to the time of maturity. The height attained in this fourth growth cycle is maintained until old age, but there may be an increase in weight (34, 73).

The growth cycles are so universal that clothing for children is sized accordingly. The rapid growth in the first year necessitates two sets of clothing, the *infant* size for the first 6 months and the *first* size for the last 6 months. The next larger size is adequate for the child up to his second birthday, while the next serves for 2 years, from the second to the fourth birthday. Sizes for older children and adolescents likewise take into consideration the growth and the resting periods.

The growth cycles inevitably affect the child's behavior. Box 6-1 lists the effects that are most common and most difficult to adjust to.

VARIATIONS IN GROWTH CYCLES

As Johnston has pointed out, "The time clock which governs the developmental process in children is an individual one" (55). A number of factors determine whether that time clock will run fast, slow, or at a moderate rate. *Family* and *ethnic background* have an influence on height, bone development, age of sexual maturing, and eruption and decaying of teeth (10).

There are *sex differences*, with boys growing faster than girls at certain ages and girls faster than boys at others. From about 9 or 10 to 13 or 14 years of age, for example, girls are taller and heavier than boys because of their earlier pubertal development. Variability within the sex group is usually greater among boys, though variability in growth rates for both sexes increases with age (10, 43, 62, 73). Characteristic patterns of growth for the two sexes are shown in Figure 6-1.

Body size and *body type* influence the rate of growth and are responsible for some of the variations. A small child has longer growth periods than a large child, but he may not catch up with the large child even at maturity.

Placid children tend to grow faster than those who experience *emotional tension*, though tension has a greater effect on weight than on height (92).

Box 6–1

COMMON EFFECTS OF GROWTH CYCLES

Adjustment Difficulties

During periods of rapid growth, the constant need to make new adjustments can be emotionally disturbing. During periods of slow growth, adjustments are much easier.

Energy Level

Rapid growth is energy-consuming, and the child is easily fatigued; this makes him moody and irritable. A slow growth cycle leaves more energy for play and other activities. The child is more cheerful and easier to live with.

Nutritional Needs

Nutritional requirements are greatest during periods of rapid growth—the first 2 or 3 months of life and at puberty. The child who is not getting enough nourishment for his growth needs becomes tired and irritable. He shows little interest in schoolwork or play and generally makes poor social adjustments.

Maintenance of Homeostasis

During periods of slow growth, the body normally can maintain homeostasis. During rapid growth, homeostasis is disturbed; this is reflected in a finicky appetite, general fatigue, irritability, and unsocial behavior.

Awkwardness

Rapid growth is accompanied by awkwardness. The child who formerly had good motor coordination becomes clumsy and seems to stumble over his own feet. When growth slows, the awkwardness is replaced by good motor coordination.

Body Size

Body size is measured in terms of height and weight. While height and weight follow similar patterns of development—with slow gains in one paralleled by slow gains in the other, and vice versa—the total growth in height from birth to maturity is less than the total growth in weight. The total increase in height is 3½-fold and the total increase in weight is 20-fold (62). Increases in body size for boys and girls at different ages are shown in Figure 6–1.

CONTROL OF BODY SIZE

Body size is controlled by the *growth hormone*, secreted by the anterior lobe of the pituitary gland—a small gland located at the base of the brain. If growth is to proceed normally, the hormone must be produced in the right amounts and at the right times. If too little is produced, growth ceases earlier than normal. If too much is produced, overgrowth results.

Whether the growth hormone will be produced in the right amounts and at the right times depends not upon the pituitary gland alone but also upon the thyroid glands and gonads. At puberty, for example, the hormones produced in the gonads—*estrogen* in the female and *androgen* in the male—act as retarding influences on growth. These hormones stimulate the deposition of calcium, which causes the bones to ossify and bring about the closure of the epiphyses of the bones. When this happens, growth is gradually brought to a halt.

HEIGHT

Children of the same age vary greatly in height, but the pattern of growth is similar for all. Expressed in terms of averages, the pattern gives a picture of the growth of the typical child. The neonate measures between 17 and 21 inches. For 2 years, his height increases rapidly. At 4 months, he measures 23 to 24 inches; at 8 months, 26 to 28 inches; and at 1 year, 28 to 30 inches. At 2 years, he is 32 to 34 inches tall, and by 5 years his birth height has doubled. Then there is a slow gain of approximately 3 inches annually until the onset of the puberty growth spurt.

At 11 years of age, when the average American girl begins her puberty growth spurt, she is 58 inches tall. By the time she is sexually mature, at 13 years, she is 63 inches tall, and at 18 years, when her growth in height is complete, she measures 66 inches (62, 73).

Boys begin the puberty growth spurt approximately a year later than girls. So the average American boy is from ½ to 1 inch shorter than the average girl at 13 years of age. From then on, however, boys grow more rapidly than girls and continue to grow approximately a year longer. At maturity they are taller than girls. At 13, the average boy measures 62 inches. A year later, when he becomes sexually mature, he measures 65 inches; at 18 years, he measures 69.5 inches. Between 18 and 20, he may add another half inch or even an inch (62, 73, 92). The difference in height between the sexes after the puberty growth spurt is shown in Figure 6–2.

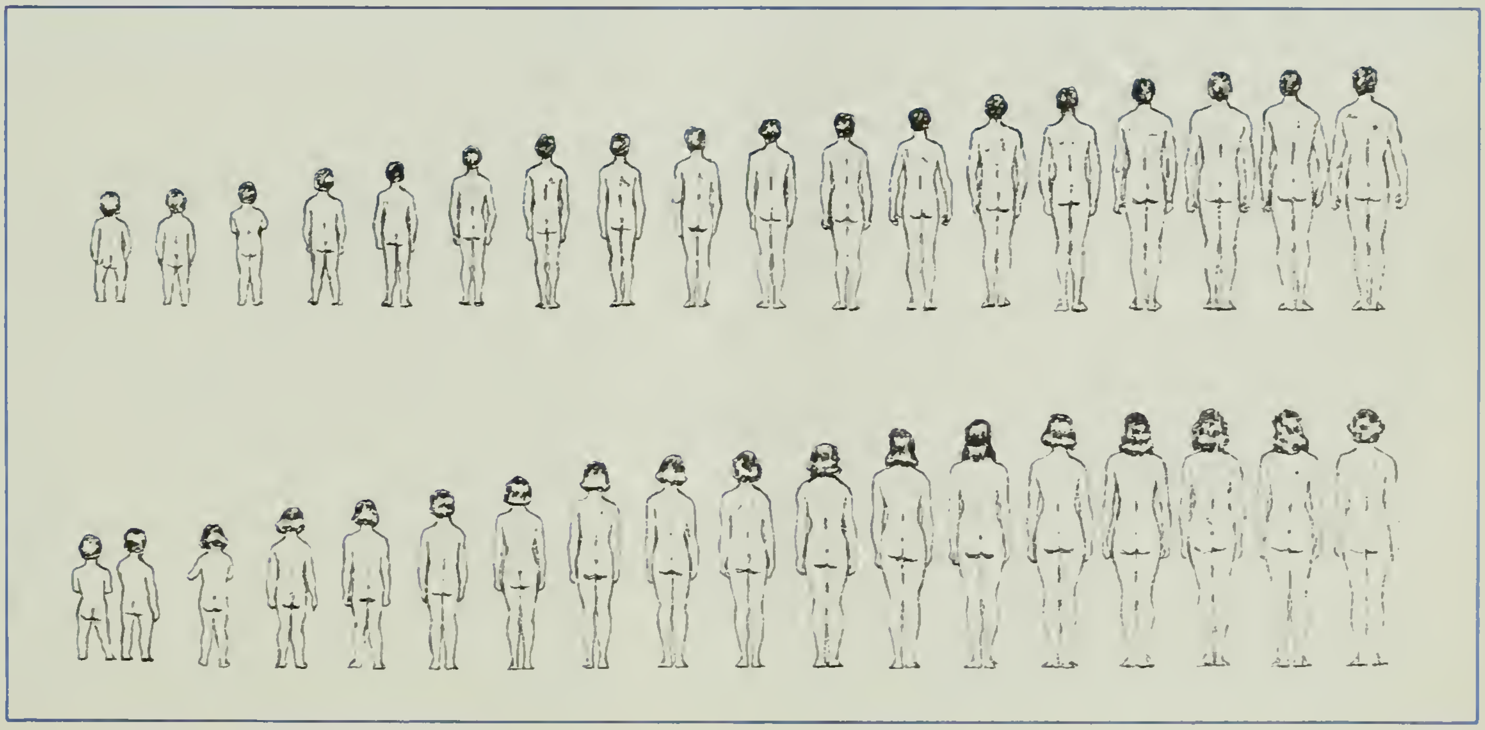
WEIGHT

While the average newborn weighs between 6 and 8 pounds, some babies weigh only 3 or 4 pounds, and others nearly 16. The pattern of increase, however, is much the same for all. By the end of the first month, the average baby not only has regained the weight lost after birth but has begun to show a weight increase. At 4 months, he has doubled his birth weight and, at the end of the first year, trebled it. During the second and third years, he gains from 3 to 5 pounds annually. The pattern of weight gain is shown in Figure 6–3.

After the third year, gains in weight are even slower, until the onset of puberty. At 5 years, the typical child weighs approximately five times his birth weight, and at the onset of puberty weighs between 80 and 90 pounds. By the age of 15, the average girl weighs 126.5 pounds. The average weight for boys at 12 years, when they begin their puberty growth spurt, is 96 pounds and, at 16, when the spurt is nearly complete, 142 pounds.

Between 10 and 12 years, at or near the onset of the growth spurt, many children have a *puberty fat period.* Sometimes this period lasts for 2 years, until the child becomes sexually mature. Part of the fat comes from hormone dislocations, which occur with the onset of sexual maturing, and part from overeating, which is stimulated by rapid physical growth. The pubescent child is not fat all over. Rather, fat accumulates over the abdomen, around the nipples, in the hips and thighs, and in the neck, jaws, and cheeks. These are conspicuous areas, and the child has a "fat look."

Figure 6–1. Changes in body size and proportions of one boy and one girl observed between the ages of 15 months and 18 years. (Adapted from N. Bayley. Individual patterns of development. Child Develpm.. *1956,* **27**, *45–74. Used by permission.)*



In babyhood, most of the weight gain comes from an increase in fat tissue, owing to the high content of fat in milk, the chief component of the baby's diet. As childhood progresses, body weight comes more from bone and muscle tissue than from fat tissue. In the latter part of childhood, for example, fat tissue is responsible for only 21 to 29 per cent of total weight.

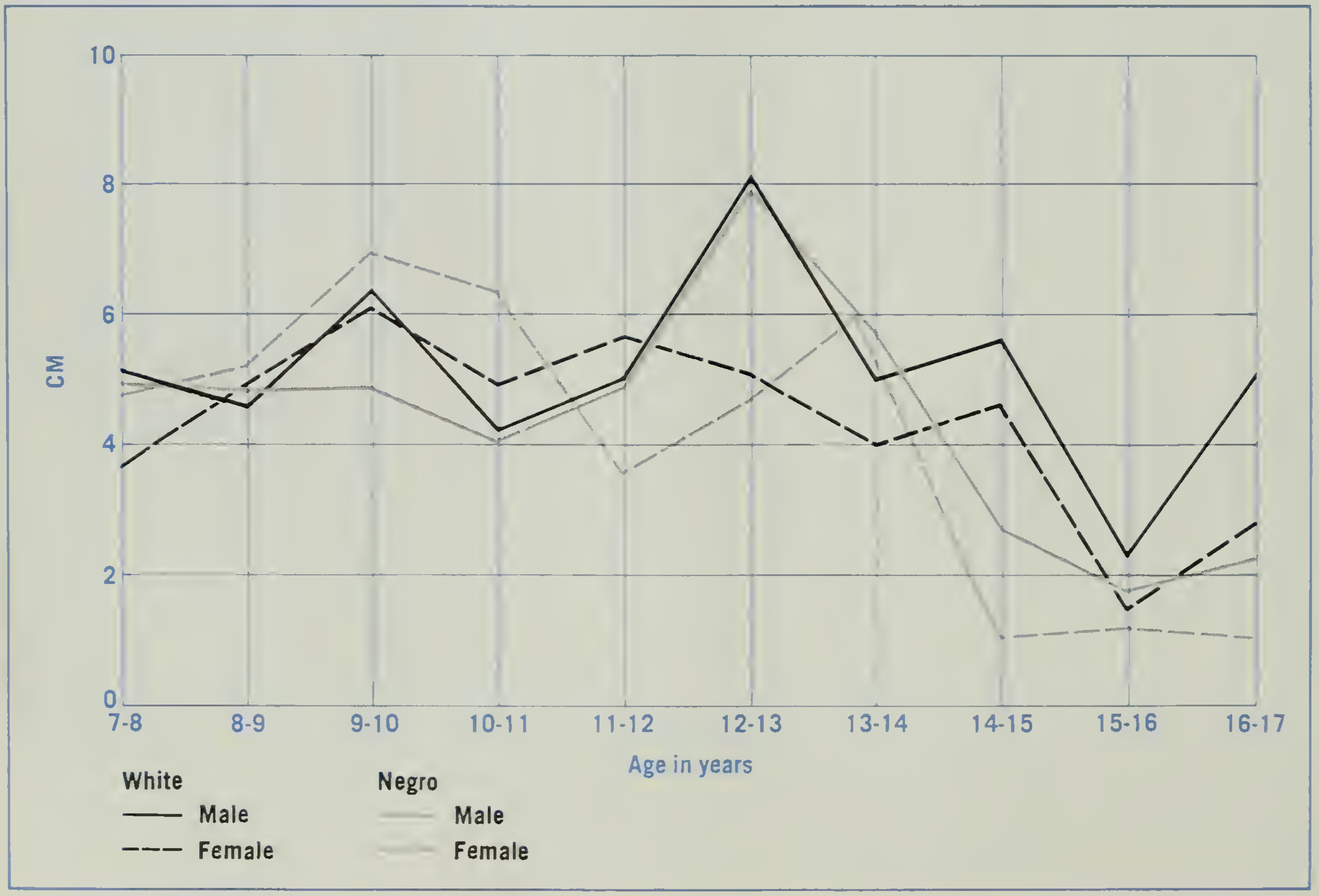
During puberty, the bones of the body increase in length. Shortly afterward, they begin to harden, or ossify, and the muscle tissue begins to increase. Both add to the child's weight. In the latter part of childhood, the muscles make up approximately one-fourth of the body weight. At sexual maturity, they make up approximately 45 percent of total weight.

RELATION BETWEEN HEIGHT AND WEIGHT

In the average "normal" child, weight and height are in the right proportions. In the skinny or the obese, weight is either too little or too great for the child's height. The most important causes of variations in body size are shown in Box 6-2.

Excessive Thinness. Excessively thin children may be suffering from poor health, starvation, or malnutrition. More often they are suffering from nervous tension, which leads to lack of appetite and digestive disorders. Nervous tension is generally the result of parental anxiety about the child's well-being. The anxious parent attempts to make the child eat more

Figure 6-2. Growth in height during late childhood and early adolescence. Note the slow rate of growth in childhood and the rapid rate at puberty. (Adapted from W. M. Krogman: Growth of head, face, trunk, and limbs in Philadelphia white and Negro children of elementary and high school age. Monogr. Soc. Res. Child Develpm., *1970,* 35, *No. 3. Used by permission.)*



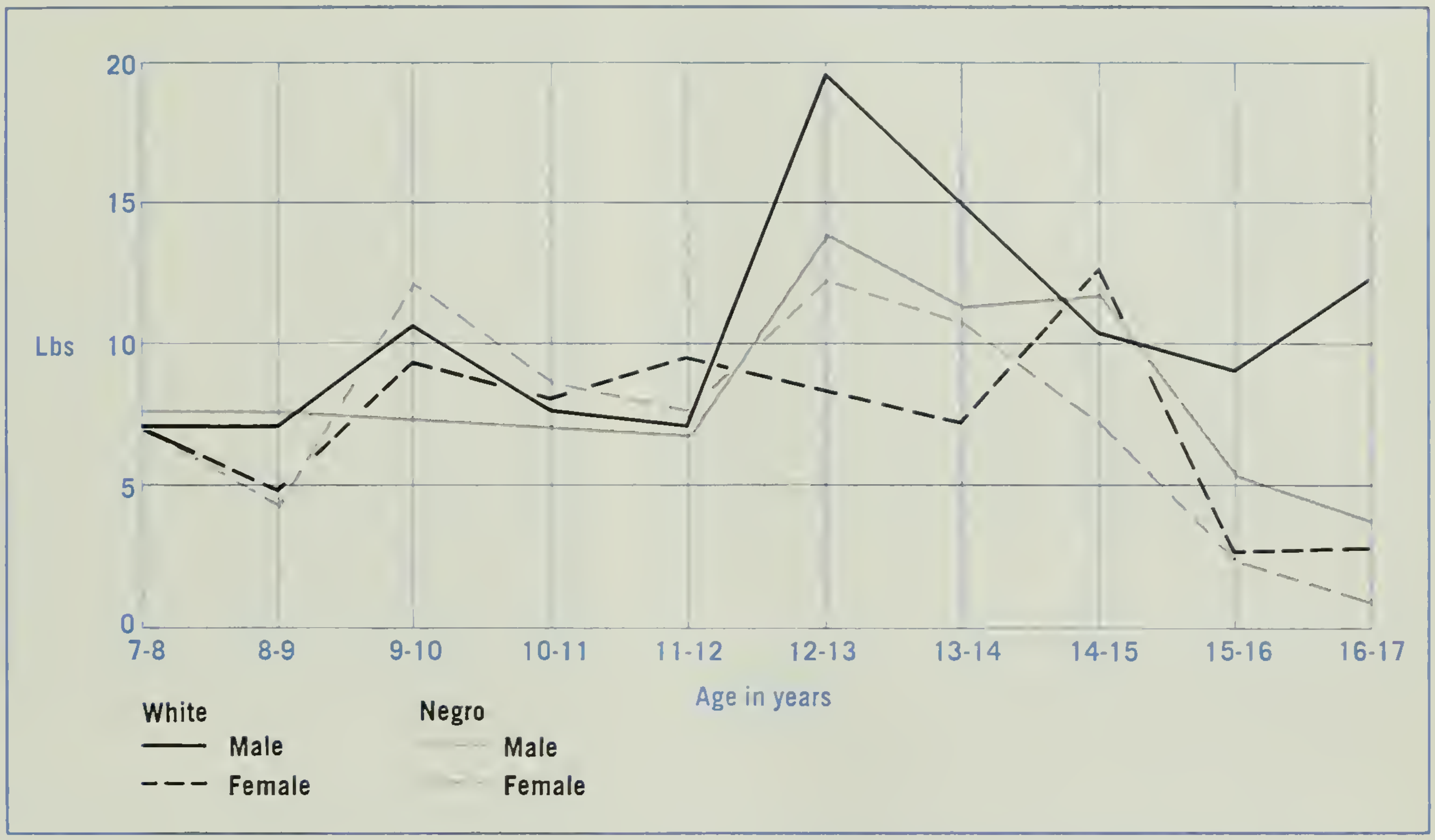


Figure 6–3. Growth in weight during late childhood and early adolescence. (Adapted from W. M. Krogman, Growth of head, face, trunk, and limbs in Philadelphia white and Negro children of elementary and high school age, Monogr. Soc. Res. Child Develpm., *1970,* **35,** *No. 3. Used by permission.)*

than he wants or needs by punishing him for not eating everything on his plate, by making derogatory comparisons with his siblings, or by using threats and bribes.

Obesity. Faulty eating habits, encouraged by parental pressures to overeat, are partially responsible for obesity. More often, it stems from unfavorable psychological factors, such as overdependency, feelings of inadequacy, or feelings of rejection. There is some evidence that people who inherit genes leading to heavy body builds are especially sensitive to stressful situations, and this precipitates overeating (17).

Obesity does not develop overnight; in fact, most obese children have been fat from early babyhood. Parents who tend to overeat or who are anxious that the child be well nourished encourage the child to overeat. As he becomes fat, he has little interest in exercise and so becomes more obese. His obesity serves as an alibi for not participating in sports and other social activities. He may then find that food provides a substitute satisfaction which temporarily soothes his feelings of inadequacy. In time, Atkinson and Ringuette point out, "massively obese individuals become more disturbed, perhaps because of both increasing self-dissatisfaction and cumulative adverse responses from others" (7). Refer to Box 6–2 for the most important causes of variations in body size.

SIGNIFICANCE OF BODY SIZE

Although parents often worry about the size of the child's body, size and health are not necessarily correlated (92). The psychological importance of body size to a child will depend on how others, especially peers, react to his size. Most children are not body-size-conscious except when there is a marked deviation from the norm. Being slightly taller or shorter than the other children does not affect a child's popularity.

Deviations in weight are far more common than deviations in height. Most often, they are on the plus side. The majority of excessively fat children become aware, even before they enter school, of how others feel about their obesity. They know that adults feel sorry for them and that peers regard them as slow and clumsy.

Obese children often develop severe feelings of personal inadequacy. They may compensate by eating even more than before, thus becoming fatter and less acceptable to their peers. Sontag has said, "The unconscious cruelty of children toward anyone of them whose body does not conform to theirs in size, form, and function may be an important factor in the emotional adjustment of children lacking this conformity" (112).

Physical Proportions

The proportions of the neonate's body are quite different from those of the adult (see Fig. 3-3). Growth therefore results not only in an increase in size but, of equal importance, in changes in bodily proportions. Not all parts of the body attain mature proportions at the same time, but on the whole, all have assumed mature proportions by the time the adolescent is 16 or 17 years old. No marked sex differences in body proportions are apparent in childhood.

Changes in proportions from birth to adulthood are indicated in Figure 3-3. The adult head is twice its birth size; the trunk is three times its birth size; and the arms and legs are, respectively, four and five times their birth length.

In general, changes in proportions follow the laws of developmental direction (discussed in Chap. 3). The changes are relatively slight during the first half year of postnatal life. From then until puberty, head growth is slow, limb growth rapid, and trunk growth intermediate. The brain and facial features attain maturity in size and development before the organs and features of the trunk and limbs.

CHANGES IN BODY PROPORTIONS

Changes in body proportions are due to *asynchronous growth*, or "split growth" (114, 119). This means that the different parts of the body have their own periods of rapid and slow growth and that each reaches its mature size at its own time. Growth in all parts of the body, however, is continuous and concurrent. A child's brain, for example, does not stop growing while his muscles, lungs, and bones are growing.

Growth curves for height and weight show that, except during the first year of life, children grow more rapidly in height than in weight. To express this relationship, Krogman has suggested a simple rule: "Children grow tall before they grow heavy" (62). In the latter part of childhood, the extremities grow faster than the trunk, and the child seems to be all arms and legs.

Asynchrony is especially apparent when different regions of the body are compared. The muscles, bones, lungs, and genitals, for example, increase approximately twenty times in size during the growth years, while the eyes, brain, and some other organs which are relatively more developed at birth increase much less. The eyeball completes most of its growth during the first 5 years of life and the brain during the first 10. The heart and some other internal organs require more than 20 years to complete their growth.

The Head. The head grows proportionately less after birth than most other parts of the body. At birth, the head is 22 percent of the total body length. If these proportions remained constant, a man of 6 feet would have a head about 16 inches in length instead of the average 8 or 9. At 10 years, the head is 95 percent of its adult size, and at 15 years, 98 percent.

The cranial part of the head is large and the facial area small at birth. The child's head is broader in relation to length that the adult's. The head has practically finished its growth in width by the time the child is 3 years old, but it continues to increase in length until he is 17 or 18. The growth pattern in length and width is much the same for boys and girls, though boys' heads are slightly larger at every age (73, 81).

The Face. The cranium completes its growth early, so the top of the head appears to be too large for the face. The lower part of the head throughout babyhood and early childhood is small and undeveloped, owing primarily to the smallness of the baby teeth. The facial skeleton becomes larger in proportion to the cranium from birth to 8 years, and diminishes the "babyish" look. If this radical change in facial proportions did not take place, the adult eyes would be near the middle of the face (73).

During the transition from baby to permanent teeth, changes in occlusion—the fitting together of the upper and lower teeth—affect the shape of the lower part of the face. Malocclusion may be caused or aggravated by irregularities in the growth of the two jaws; variations in the size of the upper and lower teeth; thumb sucking, especially before the child is 5 years of age; mouth breathing; pressure on the chin, as in stomach sleeping during the babyhood years; or tongue biting. Not only will malocclusion result in a poorly shaped mouth and chin, but it will also interfere with chewing and thus affect digestion.

The features of the face as well as its shape change. At first, the *forehead* is large, rounded, and prominent. It starts to flatten and to decrease in relative size when the child is about 5 years old. The *eyes* reach their mature size as the child approaches puberty and are set farther apart as the face broadens. The *lips* fill out gradually, but do not acquire their adult size and shape until the child has become sexually mature.

The *nose* is one of the most disproportionate of the facial features in childhood. For the first few years, it is small and rather flat on the face. Then, from 5 to 10 years, it grows faster than any of the other features. It is the first of the facial features to reach mature size, generally around the age of 14 years. During this growth spurt, the cartilage framework of the nose develops, and the nose becomes larger and assumes a more definite shape.

As the different facial features mature, the "blank look" of the young child, as Simon has described it, is gradually replaced by a more "critical" expression. Individuality in facial expression increases as the features assume new shapes and proportions (108).

The Trunk. The top-heavy development of the baby militates against good balance and must be partially corrected before he can sit, stand, or walk. As the child grow older, the change in proportions essential to good balance comes about through a gradual lengthening of the trunk, legs, and neck. By the age of 6 years, the trunk is twice as long and twice as wide as at birth. From then until adolescence, body length increases approximately 50 percent. By maturity, birth dimensions are trebled.

At first, the infant has no neck to speak of. His head sits on top of his shoulders. Gradually he develops a short, stocky neck which blends into the sloping shoulders. Around the fifth year, the neck begins to lengthen and become more slender, while the shoulders become broader and more firmly molded. As the shoulders drop, with the lengthening of the neck, the weight of the child's body is more evenly distributed.

The shape of the trunk also undergoes rapid changes. In the first year, the baby's body is thickset

Box 6-2

FACTORS INFLUENCING VARIATIONS IN BODY SIZE

Body Build

Roughly, children may be described according to one of three types of body build: the *endomorph* tends to be round and fat; the *mesomorph* tends to be heavy, hard, and rectangular; and the *ectomorph* tends to be long and slender.

Family Influences

Family influences are both hereditary and environmental. Genetic factors make some children fatter and thus heavier than others. Environment helps to determine whether hereditary potentials will be reached. At every age, environment has a greater influence on weight than on height.

Nourishment

Well-nourished children are taller and reach puberty sooner than poorly nourished children. Poor nourishment during puberty can prevent the attainment of hereditary growth potentials.

Emotional Disturbances

Persistent emotional disturbances cause an overproduction of adrenal steroids which inhibit production of the pituitary's growth hormone. This delays the growth spurt in late childhood and prevents the child from reaching the height he would otherwise attain.

Sex

Boys tend to be taller and heavier than girls except between the ages of 12 to 15 years. Differences in weight after sexual maturity are due to the heavier bones and muscles of the boys.

Ethnicity

Variations in body size may be due to ethnic background. Children of Finnish stock, for example, have been reported to be larger than those of Italian and Mexican ancestry.

Intelligence

All other things equal, children of high intelligence tend to be slightly taller and heavier than children of low intelligence. Children of high academic achievement also tend to be taller and heavier.

Socioeconomic Status

Age for age, children from homes of low socioeconomic status grow less rapidly and are smaller than other children.

because of the greater increase in the girths and transverse diameters than in the length. Up to 4 or 5 years, the trunk is sacklike, with no apparent waistline and with sloping shoulders, rounded chest, and protruding abdomen. From then until the end of childhood, the stockiness of the trunk gradually lessens, and the body tends to be coneshaped. The shoulder line becomes square, the abdomen flattens, the chest broadens and flattens, the waistline becomes clearly indicated, and the pelvis broadens and is less vertical.

The shape of the adult trunk is greatly influenced by the age at which sexual maturing occurs. The typical masculine figure, with broad shoulders and narrow hips, is characteristic of boys who mature later than the average. By contrast, broad hips and narrow shoulders are more characteristic of boys who mature early. Late-maturing girls tend to have broader shoulders and hips than early-maturing girls. Regardless of the age of maturing, girls tend to have a greater enlargement in the area of the hips than boys because of the broadening of the pelvic arch.

Arms and Legs. At birth, the legs are proportionally too short, the arms too long, and the hands and feet too small. If the adult had legs proportionate to those of the newborn infant, his hips would be just above the knee level. Growth at different rates must, therefore, occur before mature proportions are attained.

The *arms* lengthen to between 60 and 75 percent from birth to 2 years. When the child is 8, the arms are nearly 50 percent longer than they were at 2 years. Because the arms are very thin, with no marked development in the musculature, the child has a spindly, all-arms look. From 8 until 16 or 18 years, growth in arm length is slow, while development in shape, due to increased musculature, is taking place. The early-maturing child generally has shorter arms at maturity than the late maturer.

The *legs* of the newborn infant are short and flexed so that the soles of the feet face each other. As the legs grow in length, they straighten. By the time the child is 6 years old, his legs and knees should be straight. During the first 2 years of life, the legs grow 40 percent; at 8 years, they are 50 percent longer than at 2. Thus the legs grow at a slower rate at first than the arms. By adolescence, the legs are four times as long as at birth, and at maturity, five times as long. The legs, like the arms, are thin and spindly until puberty. Then, as the increase in length slows, the muscles develop and the shape of the legs changes. Early maturers tend to have short, stocky legs at maturity, while late maturers characteristically have long, slender legs.

The *hands* and *feet* of the newborn infant must increase in size as well as in muscular development before they can be used. Throughout early and middle childhood, the fingers are short and stubby because of the slow growth of the bones. The hands grow rapidly early in puberty and attain their mature size and shape by the fourteenth or fifteenth year.

The feet also have a growth spurt early in puberty, reaching their adult size at approximately the same time as the hands. There are marked individual variations in the size and shape of the feet in childhood. Boys, at every age, have larger feet than girls, and their feet reach mature size later. There is some correlation between the size of the foot and the height of the individual.

CONSEQUENCES OF CHANGES IN PROPORTIONS

The changes in body proportions have an impact on the child's behavior, his personality, and the reactions of other people. Of the many consequences of the changes four are almost universal. They affect the child either directly or indirectly.

Awkwardness. When body proportions change, especially when they change rapidly, the child temporarily loses control over his body. The child who has become skillful in using his short, stubby fingers, for example, becomes clumsy at puberty when his hands start to grow larger and his fingers begin to lengthen and taper.

Appearance. Beauty is judged by conformity to adult proportions, so the child often creates the impression of being homely, especially in late childhood and early puberty. In the transition from baby to permanent teeth, the child's mouth seems too large for the rest of the face. When the arms and legs become long and spindly, the child has a coltlike appearance, and the hands and feet seem much too big.

An attractive child elicits more positive responses from adults than a homely one. The more favorably a child is treated, the more conditioned he is to like people and to behave in a manner that will guarantee favorable treatment. By contrast, the unattractive child may sense that he is not so well liked, and this may lead to social withdrawal or socially unacceptable behavior.

Concern about Body Disproportions. Even though children have little direct concern about their appearance, they become upset about body disproportions that *set them off* from their age-mates. So long as everyone has a coltlike appearance, no one is concerned. But the child who is out of step with his contemporaries—because his growth spurt comes much earlier or later than theirs—is acutely aware of his body disproportions. A nose too large for a small chin, hands and feet too big for small arms and legs, or hips too big for small shoulders can then become a source of great concern. An early-maturing child who is the first of his age-mates to experience these disproportions may feel that everyone is watching him. If, in addition, he fears that something is wrong with him, he may develop a distorted self-concept.

Maturational Status. There is evidence that the child's body configuration—the relationship of the different parts of the body to one another—is closely associated with intellectual and emotional maturity. This, in turn, is an indication of readiness for school. The typical body configuration of the child who is ready for school and that of the child who is still unready are shown in Figure 6–4. Simon (108) has written:

> *Physical maturity is more than skin-deep: it is reflected not only in superficial body features but in the maturational status of the central nervous system which in turn underlies such behavior as readiness to submit to restrictions and the application to tasks.*

The child who is overweight creates the impression that he is less mature than he actually is, while the lean, long-legged child may look unduly mature. If others respond to the child as exceptionally mature or immature, it is likely to influence his self-concept.

Bones

Bone development consists of growth in bone size, change in the number of bones, and change in their composition. It follows the same general trend as growth in size; that is, bone development is most rapid during the first year of life, then relatively slow up to the time of puberty, and then once again more rapid.

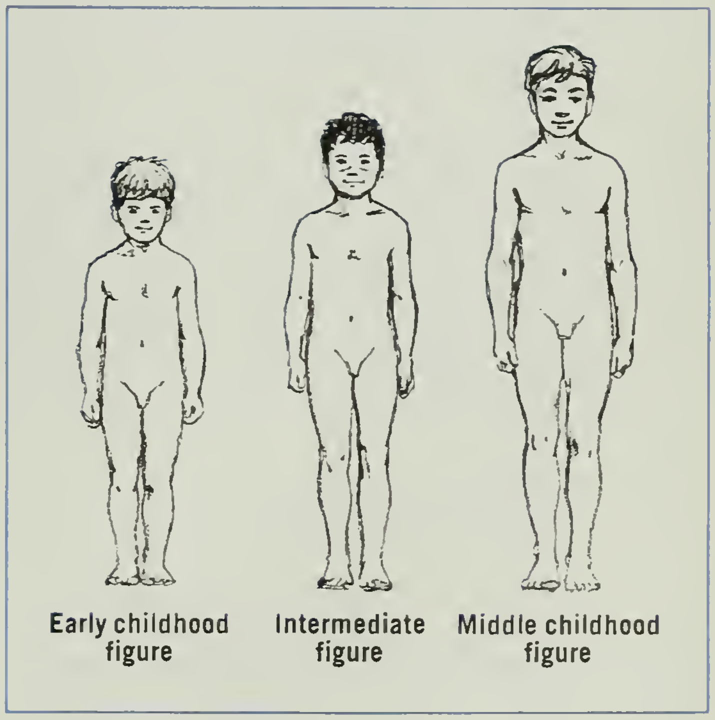
In the early months of postnatal life, the bone tissue is soft and spongy. There is cartilage or membrane in some places where there will later be bone. The child's bones have more water and proteinlike substances and less mineral content than adult bones. The outer layer, or *periosteum,* is thick, and this prevents complicated fractures. The child's bones are not firmly knit together. Instead, there is much space between the ends of the bones. The ligaments at the joints are longer and less firmly attached than in the adult.

Bones grow in length at the ends, the *epiphyses,* where a strip of cartilage separates the bone shaft, or *diaphysis,* from other bony masses. The original cartilage at the epiphyses is gradually converted into bone, and as long as the epiphysis and the diaphysis do not fuse, the bone will continue to grow. Stimulation by the sex hormone at puberty is responsible for the fusion of the two portions and, ultimately, the limitation of growth. Bones grow in width by adding new bone tissue at their outer edges.

OSSIFICATION

Ossification, or hardening of the bones, is entirely postnatal, beginning in the early part of the first

Figure 6–4. Body configurations of children at different ages. Note the differences in body configurations for the two children on the left, both of whom are maturationally unready for school, and for the child on the right who is maturationally ready for school. (Adapted from M. D. Simon, Body configuration and school readiness. Child Develpm., *1959,* **30,** *493–512. Used by permission.)*



year and ending during puberty. The process begins at the "ossification center" in the cartilage and gradually spreads throughout the bone. When the process is finished, each bone has its characteristic shape.

Ossification proceeds at different rates for different parts of the body. The fontanels, or "soft spots" of the cranium, for example, are closed in over 50 percent of all babies by the age of 18 months and in nearly all by 2 years. Ossification of the long bones of the legs, on the other hand, does not occur until puberty. There are likewise marked sex differences in rates of ossification, with girls ahead of boys at every age level.

Ossification is largely dependent upon the secretion of a hormone from the thyroid glands. A deficiency of this hormone will delay ossification. There is also a close relationship between ossification and nutrition. A dietary deficiency may mean inadequate mineralization and delayed ossification. The child may then have bowed legs and other skeletal deformities because the bones were not hard enough to withstand the pressure from the weight of his body.

Importance of Ossification. Because the bones are soft at first, the baby's body is pliable. He can, without difficulty, get into all kinds of strange positions, like putting his toes in his mouth when lying on his back. The bones are liable to be deformed, through pressure, unless care is taken. The shape of the head can be flattened if the baby always sleeps on his back, or the chest can be flattened if he spends most of his sleep time on his stomach. Even in the elementary school years, bone deformities can result from short shoes or from sitting in a cramped posture at a school desk.

Psychologically, ossification is important because it affects the appearance of the child, and this is one of the important bases on which others judge him. Should his head, for example, become flattened because he was permitted to sleep only on his back as a baby, he may be judged as less attractive than his facial features would justify.

Muscles and Fat

Besides the weight contributed by the bones, increase in body weight comes mainly from *muscle* and *adipose,* or fatty, *tissue.* In the early years of childhood, adipose tissue develops more rapidly than muscle. From the ages of 12 to 15 in girls and 15 to 16 in boys, there is a marked increase in muscle tissue. What proportion of the child's body weight will come from muscle and what from adipose tissue will depend largely upon his body type.

Children who tend toward *endomorphy* have more soft adipose tissue than muscular tissue. Those who tend toward *mesomorphy* have a predominance of muscle and connective tissue. And those who incline toward *ectomorphy* do not have a predominance of either: the muscles are slender, and the adipose tissue is minimal.

MUSCLES

The muscles play a major role in regulating the vital organs of the body, such as the heart, the organs of the digestive system, and the glands. They are also responsible for strength and coordination of activity. At birth, muscle fibers are present, but undeveloped. After birth, they change in size, shape, and composition. The muscle fibers grow in length, breadth, and thickness. At maturity, the muscles are at least five times as thick as at birth.

For the average person, muscle weight increases fortyfold from birth to maturity. Up to 5 years of age, the muscles grow in proportion to the increase in body weight. Then, from 5 to 6 years, comes a rapid spurt in muscle growth, at which time the child's weight gain is approximately 75 percent muscle weight. After this, muscle growth slows, to be followed by a marked spurt at puberty.

In early childhood, the muscles are more delicate and less firmly attached to the bones than at maturity. As the muscles become stronger, the child has a strong drive for muscular activity. He is constantly on the go, is restless when forced to be inactive, and frequently overtaxes his strength by strenuous play.

Children who have broad, thick muscles have superior physical strength; those with smaller muscles are usually more agile and show better coordination in skilled activities. Some children have muscles that fatigue easily; others have muscles that show great endurance.

Sex differences in muscular development become pronounced at puberty, when boys' muscles grow larger and stronger. Girls are superior to boys at all ages in flexibility and use of their muscles, while boys are superior in muscular strength (43).

FAT

The amount of adipose tissue a child has depends not only upon heredity and body build but also upon eating habits. Certain changes, however, are related to age. From birth to 9 months, adipose tissue increases rapidly in all children; then comes an abrupt and rapid decrease up to 2½ years. The decrease slows down until approximately 5½ years and remains practically unchanged to 11 years. Then the amount of adipose tissue increases rapidly between 11 and 13 years, the "puberty fat period." Normally, there is a decrease in the latter part of adolescence, and the adolescent body becomes slender. There may, however, be an increase in weight due to an increase in muscular tissue.

Among children over 13 years of age, sex differences in the amount of adipose tissue become increasingly great. Differences are also associated with socioeconomic status. Children from the upper socioeconomic groups have greater amounts of muscle and of subcutaneous fat from 8 through 11 years of age, and they tend to be heavier than children from lower socioeconomic groups. Among girls, this socioeconomic difference is especially pronounced between the ages of 6 and 8 years (43, 76, 77, 78).

EFFECTS OF FAT-MUSCLE RATIO

The relative amounts of adipose tissue and muscles affect the child both directly and indirectly. *Directly,* they influence the type and quality of behavior. A child with a predominance of muscular tissue has the physique to excel in sports and games, and this raises his prestige in the eyes of his peers. By contrast, the excessively fat child is poor in sports and games.

The energy level of a child is likewise influenced by his body build. The boy with a mesomorphic build, for example, tends to be more athletic, assertive, and dominant than boys with endomorphic or ectomorphic builds. The ectomorphic child, on the other hand, has a low energy level, and this is reflected in nonassertive and easygoing behavior.

The *indirect* effect of the fat-muscle ratio is apparent in the child's own reactions to his body build. This is greatly influenced by his knowledge of how others react to it. As early as kindergarten age, many children realize that a mesomorphic build is more favorably judged than an endomorphic or ectomorphic build (66, 67). By the time they are 7 or 8, most children can type themselves (113). They are also aware of the popular stereotypes associated with different body builds. For example, they know that a fat person is thought of as lazy, that the thin and lanky person is regarded as a "brain," and that the muscular person is assumed to be an athlete (60, 109, 115).

If their bodies conform to favorable stereotypes, children are satisfied. If not, they are not only dissatisfied, but often engage in behavior that others disapprove. This, in turn, leads to unfavorable self-judgments. Boys with short, wide, chubby bodies are likely to be more impulsive and obstreperous than boys who tend toward a mesomorphic build. Girls who are tall and lanky, realizing that they do not conform to socially favored stereotypes, are anxious, and this often leads to impulsive and obstreperous behavior (57, 65).

Biller and Borstelmann (11) have emphasized how important it is to boys to conform to a socially approved body build stereotype:

> *A boy could have a very available masculine and nurturant father, as well as a mother who encouraged masculine behavior, but be limited in the development of a masculine adoption by inadequate or inappropriate physical status. Though mesomorphy per se is not sufficient to produce masculinity, a mesomorphic physique seems better suited for success in most masculine activities than one that is not, and parents and others seem to expect more masculine behavior from a mesomorphic boy than they do from a non-mesomorphic boy. . . . The tall and husky, or mesomorphic, boy may, even without the encouragement of parents, find success easier in masculine activities so that he is seen by others, and consequently learns to see himself, as very masculine. The frail ectomorph or pudgy endomorph may find such success difficult so that he may be seen by others, and learn to see himself, as unmasculine.*

Teeth

The growth of teeth is a continuous process from the third prenatal month, when the teeth begin to form in the jaw, until 21 to 25 years of age, when the last of the permanent teeth, the wisdom teeth, reach their full size. During this time, the child develops two sets of teeth—the baby or temporary teeth and the permanent teeth. These two sets of teeth differ in four important respects, as may be seen in Box 6–3.

Temporary Teeth. Ordinarily, the first temporary tooth cuts through the baby's gum between the sixth and eighth months, but the time of eruption depends upon health, heredity, nutrition before and after birth, race, sex, and other factors. By 9 months, the average baby has three teeth. Girls, as a rule, cut their first tooth slightly earlier than boys, but between 9 months and 2 years, boys are generally ahead of girls.

The *sequence* of eruption of the temporary teeth is more important than the age of eruption. The lower teeth, as a rule, appear before the upper. Irregularity in the sequence of eruption is likely to throw the jaws out of position and result in malocclusion, or poor alignment of the teeth. This may permanently affect the shape of the lower part of the face and cause the permanent teeth to be out of line.

Permanent Teeth. After the temporary teeth have erupted, much activity goes on inside the gums as the permanent teeth begin to calcify. The order of calcifying is the same as the later order of eruption. On the average, the child at 6 years of age has 1 or 2 permanent teeth; at 8 years, 10 or 11; at 10 years, 14 to 16; at 12 years, 24 to 26; and at 13 years, 27 or 28. The last four of the permanent teeth, the wisdom teeth, erupt between the ages of 17 and 25 years, if they appear at all. Girls shed their temporary teeth earlier than boys and get their permanent ones, except the wisdom teeth, earlier.

Even before all the permanent teeth have erupted, most children begin to suffer from dental caries. Between 6 and 15 years, the average child has one or two caries a year. Dental caries most often develop at times of rapid growth, when nutritional demands are greatest and when nutrition is likely to be unbalanced. During the puberty growth spurt, dental caries are especially common.

Box 6–3

COMPARISON OF TEMPORARY AND PERMANENT TEETH

Temporary Teeth

- The 20 baby teeth erupt at the rate of about one a month from 6 to 8 months until 2½ to 3 years of age.
- Small in size.
- Poor in quality and subject to caries.
- Eruption accompanied by discomfort or pain.

Permanent Teeth

- The 32 permanent teeth erupt with longer intervals between, starting at 5 to 6 years and ending at 21 to 25 years.
- Large in size.
- Better quality and, therefore, more durable, though subject to caries with neglect or poor diet.
- Eruption accompanied by minimum discomfort except those which cut through the gums where no temporary teeth had been.

PSYCHOLOGICAL IMPORTANCE OF TEETH

Teeth are psychologically important to a child. They are likely to have a long-lasting impact on his behavior and on his self-concept.

Effect on Emotions. The physical discomfort accompanying the cutting of the temporary teeth is partially responsible for the heightened emotionality that begins in the latter part of the child's first year and persists into the third. While teething is not responsible for all the disequilibrium of this age, there is no doubt that it makes the baby uncomfortable and interferes with his normal patterns of eating and sleeping.

Insignia of Maturity. The cutting of permanent teeth, for the most part, causes little pain because most of them come through the gums where the baby teeth have fallen out. The new teeth are psychologically important both as an indication to the child that he is leaving babyhood behind and as a sign to others that he is reaching a new level of maturity. Church and Stone have written: "As the child loses his baby teeth, his physical appearance alters in ways that quite accurately mirror the inner changes taking place" (22).

Effect on Appearance. In spite of the satisfaction the child gets from shedding his baby teeth, they should not be extracted, but should be allowed to fall out of their own accord. Nature's timetable will not be speeded up just because the child wants it to be. Normally there is a short interval between the shedding of a baby tooth and the eruption of the permanent tooth that replaces it. This interval is lengthened when the baby tooth is pulled out prematurely. If there is no new tooth close enough to the surface to stretch the gum, the jaw tends to shrink, and when the permanent tooth is finally ready to erupt, the space for it may be too small. The permanent tooth is likely to come in crooked, overlapping the tooth adjacent to it. This may not bother the young child, but it will disturb him when he reaches the appearance-conscious stage of adolescence.

Effect on Speech. An even more serious consequence of the premature shedding of baby teeth is lisping. Before the permanent teeth come in, there is normally a gap where the baby incisors have fallen out. Few children go through this transition without lisping. Because the front teeth are the ones the child is most anxious to replace with large, permanent teeth, they are the ones he is most likely to try to pull out as soon as they become loose. The longer the interval between baby and permanent teeth, the longer the period of lisping, and the less likely the habit is to disappear when permanent teeth finally erupt. Remedial steps may have to be taken to prevent the lisping from becoming a permanent speech defect.

Development of the Nervous System

The growth of the nervous system is very rapid before birth and in the first 3 to 4 years after birth. Growth during the prenatal period, as was pointed out in Chapter 4, consists primarily of an increase in the number and size of *nerve cells*. Later growth consists primarily of the development of immature cells present at birth. After the age of 3 or 4, growth of the nervous system proceeds at a relatively slow rate.

At birth, brain weight is one-eighth of total weight; at 10 years, one-eighteenth; at 15 years, one-thirtieth; and at maturity, one-fortieth. This pattern is characteristic of the growth of both the *cerebrum* and the *cerebellum*. The rate of gain in weight of both is greatest during the first 2 years of life. The cerebellum, which plays an important role in body balance and postural control, triples its weight during the first year of postnatal life. By the eighth year, the brain is nearly mature in size, but the development of intercerebral association tracts and the building up of gray matter are hardly complete. Growth is thus internal and cannot be measured in terms of size or weight.

EFFECTS OF BRAIN GROWTH

Growth of the brain and the nervous system affects all aspects of the child's development. This is apparent in studies of the developmental differences between mentally retarded children and those of normal or above normal intelligence. The impact on behavior and personality development is particularly significant.

Effect on Appearance. The rapid growth in the size of the brain during the early years is one of the causes of the top-heavy look of the young child. Unless his cap or bonnet fits tightly, it tends to accentuate the disproportions of the upper part of the head and increase his dwarflike appearance.

Top-heaviness is further accentuated as the child's trunk and extremities elongate and become slender as compared with their chubby shapes in babyhood. Because the face remains small and the features undeveloped until puberty, the brain region of the head becomes increasingly too large for the rest of the body.

While children are not looks-conscious to the point where this bothers them, the decline in the attractiveness of their appearance affects the reactions of others to them. Unquestionably one of the factors contributing to decline in parent-child relationships as childhood progresses is that the spindly, top-heavy child is far less appealing to his parents than he was when he was chubby baby.

Effect on Helplessness. The cerebrum is responsible for control of mental functions, just as the cerebellum is responsible for postural control and balance. Rapid growth in both these areas of the brain makes it possible for the baby to shift from a state of complete helplessness to relative independence within the first 2 years of postnatal life. This matter will be discussed in detail in Chapter 7.

Effect on Intelligence. With rapid growth and development of the cortical tissues of the cerebrum come rapid changes in mental abilities. While the growth of intelligence cannot be measured very accurately with the "baby tests" now available, observations indicate that the baby is capable of remembering, of attaching meaning to people and objects, and of simple reasoning. Each year, the normal child shows a marked increase in intellectual capacities. How this affects his intellectual performances and achievements will be explained in the chapter on Development of Understanding.

Puberty Changes

Before childhood comes to an end, the physical changes that transform a child into a sexually mature adult begin. The time of these changes is *puberty*—from the Latin word *pubertas*, meaning "age of manhood." Contrary to popular belief, the transformation is not quick or easy. It takes, on the average, from 2 to 4 years. Approximately one-half of puberty overlaps the last part of childhood, and approximately one-half overlaps the early part of adolescence. These two parts of puberty are called "preadolescence" and "early adolescence." In preadolescence, the child is not, strictly speaking, a child, nor is he an adolescent. He is often referred to as a "pubescent child." Figure 6-5 shows the overlap of puberty, childhood, and adolescence.

When the sex organs begin to function, childhood comes to an end and adolescence begins. Girls become sexually mature at about 13 years, when the first menstruation—the *menarche*—occurs. From 11 to 13, many physical changes take place. After the menarche, other changes occur, and those begun earlier are completed. Boys reach sexual maturity —as indicated by the first nocturnal emission—at an average age of 14 years. Puberty changes begin between the ages of 12 and 14 in boys and are completed by 16 or 17.

CAUSE OF PUBERTY CHANGES

Until the turn of the century, the cause of puberty changes was a mystery. Today it is known that they are caused by an increase in the activity of two glands of the endocrine system, the pituitary gland and the gonads. The *pituitary* gland, located at the base of the brain, produces two hormones closely associated with puberty changes: the *growth hormone,* which is responsible for growth in body size, and the *gonadotropic*—or "gonad-stimulating"—*hormone,* which stimulates the gonads to greater activity. Shortly before puberty begins, there is a gradual increase in the production of these two hormones; the increase becomes greater as puberty progresses.

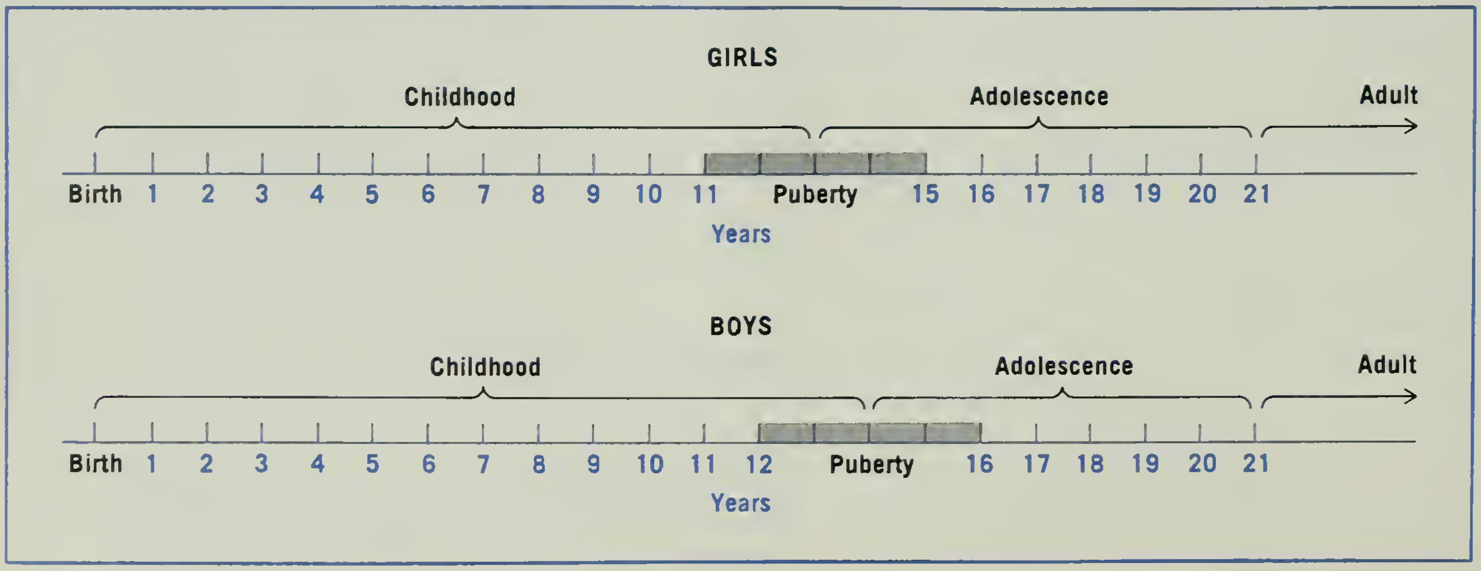
The *gonads* are the sex glands of the human reproductive system (see Chap. 4). While they are present and active at birth, their activity is increased at puberty by the gonadotropic hormone from the pituitary gland. This results in marked physical as well as psychological and behavioral changes in the child. Shortly after sexual maturity, hormones from the gonads stop the activity of the growth hormone; this ends physical growth. A proper balance in the interrelationship between the pituitary gland and the gonads leads to normal physical development. An imbalance, on the other hand, results in deviations.

During puberty, the entire body goes through a metamorphosis, both externally and internally, in structure as well as in function. For the most part, the changes follow a predictable timetable, and one knows what to expect at different stages. The changes are most rapid and most pronounced during the early part of puberty. Accompanying and paralleling the physical changes are changes in attitudes and behavior. In Box 6-4 are shown the important physical changes that occur during puberty.

VARIATIONS IN AGE OF PUBERTY

Not all children experience puberty at the same time, nor do they complete it at the same rate. These variations are responsible for many of the emotional, social,

Figure 6-5. Overlap of childhood, puberty, and adolescence.


GIRLS
Childhood
Adolescence
Adult
Birth 1 2 3 4 5 6 7 8 9 10 11 Puberty 15 16 17 18 19 20 21
Years
BOYS
Childhood
Adolescence
Adult
Birth 1 2 3 4 5 6 7 8 9 10 11 12 Puberty 16 17 18 19 20 21
Years

and personality problems characteristically associated with puberty.

Children who begin the transformation process a year or more ahead of the normal time for their sex group are "early maturers": those who begin a year or more later are "late maturers." They are popularly known as "early bloomers" and "late bloomers." Some children seem to complete their puberty changes at lightning speed: they are called "rapid maturers." Others, who take more than the normal time, are "slow maturers."

There is some evidence that early and rapid maturing—and late and slow maturing—go hand in hand. The time as well as the speed of maturing is controlled by the endocrine glands. An active pituitary gland accelerates the process, just as a less active pituitary slows it down and sets it into motion at a later age (56, 92).

Of the many factors responsible for variations in the time and tempo of puberty changes, those described below are the most important.

Endocrine Functioning. An endocrine imbalance, due to an overactive or a sluggish pituitary gland, throws the child off the normal timetable of development. If puberty begins before the age of 8 years in girls and before 10 in boys, it is considered "precocious." If it begins 3 to 4 years after the usual time for the child's sex group, it is "delayed."

In both precocious and delayed puberty, the *pattern* or sequence of puberty changes is normal. At maturity, the child who experienced precocious puberty is usually shorter than the norm for his sex group, while the one who experienced delayed puberty is slightly taller. Precocious puberty is slightly more common among girls, and delayed puberty, among boys (75, 92, 107).

Sex. Girls not only begin puberty earlier than boys, but in general, require less time to complete it. As a result, especially between the ages of 12 and 14, girls are larger and more mature in appearance and behavior.

Girls show fewer variations in time and tempo of puberty development than boys. They require approximately 3 years to complete the puberty changes, while boys ordinarily require from 2 to 4 years. Furthermore, girls are more nearly their adult size when they become sexually mature. As they grow older and approach physical maturity, girls tend to be endomorphic in physique, while boys tend to be mesomorphic. Girls who mature early are more endomorphic in body build in adolescence than girls who mature at the average age or slightly later.

Box 6-4

MAJOR PHYSICAL CHANGES AT PUBERTY

Changes in Body Size

Growth rate increases suddenly about 2 years before sexual maturing. In the year preceding sexual maturing —the "apex" of the puberty growth spurt—the child may grow 4 to 6 inches and gain 10 to 20 pounds. After sexual maturity, growth continues, but at a slower pace. During the entire 4-year growth spurt, height increases about 25 percent and weight almost doubles. Boys continue to grow more rapidly than girls, reaching their adult size at about 19 or 20, as compared with 18 for girls.

Changes in Body Proportions

The body disproportions characteristic of the child increase in certain areas and decrease in others. Not until puberty is completed will all parts of the body be mature, and hence in adult proportions. Changes occur inside the body as well as on the surface. In childhood, for example, the heart is small, while the veins and arteries are large. After puberty, the reverse is true.

Primary Sex Characteristics

The sex organs—the primary sex characteristics—are small and functionally immature in childhood. At the onset of puberty they begin to enlarge. Ordinarily, the *testes* are ready to function at the age of 14. The *ovaries* begin to function at the menarche, about age 13. Other parts of the female reproductive apparatus develop more slowly, and are not ready for childbearing for several months or a year or more. This interval is the period of "adolescent sterility."

Secondary Sex Characteristics

The secondary sex characteristics are those physical features which distinguish the male from the female body. They are indirectly related to reproduction in that they make members of one sex attractive to members of the other. They develop concurrently with the primary sex characteristics and reach maturity during the first year or two of adolescence. They include the growth of hair on the face and body, the development of the female breasts and hips, the change in voice, increased muscular development, and the change in skin texture.

Nutrition. A protein-rich diet through the growth years favors early maturing. This explains, in part, why children from temperate and cold climates generally mature earlier than those from a tropical climate, where diets tend to be carbohydrate-rich. It explains, too, why children from superior socioeconomic homes mature earlier (13).

Body Build. The child with an endomorphic build—broad hips and short legs—is likely to mature early, while the child with an ectomorphic build—slender body, broad sholders, and long legs—usually matures late. The mesomorph—whose build is muscular and compact—is slightly accelerated. Obese children generally reach puberty about a year earlier than those whose weight is more nearly normal (44).

The evidence that early and rapid maturing go hand in hand does not seem to apply universally. Children with endomorphic builds take longer to complete puberty than those of ectomorphic or mesomorphic builds. Among boys, it has been found that the fatter the child the slower the rate of maturing (117). The late-maturing child who matures rapidly has rather abrupt spurts of growth, whereas slow-maturing and early-maturing children grow at a more even rate and have less organic imbalance. In the late maturer, growth tends to be irregular and asymmetrical, with growth of the internal organs and some parts of the body lagging behind growth in stature (10).

Adult size and shape are also influenced by the age and rate of maturing. The effect on adult stature is shown in Figure 6–6.

THE NEGATIVE PHASE

Physical changes are always accompanied by changes in behavior and attitudes. In puberty, the changes are so pronounced that the established pattern of life is disturbed. The child feels uncertain, insecure, and confused. His behavior is often unpredictable and unsocial. For that reason, puberty is sometimes referred to as the "negative phase." As the tempo of growth slows down and the body changes are completed, both attitudes and behavior gradually become more equable.

The period of most rapid growth and the most difficult part of the negative phase come at the end of childhood. While some of the effects persist into early adolescence, they wane rapidly. In girls, the worst part of the negative phase is over by the time of the menarche.

Causes of Negative-Phase Behavior. Changes in behavior and attitudes during puberty come from social as well as physical causes. It seems likely that physical factors are more important in bringing about behavioral changes, while social factors are mainly responsible for changes in attitudes. Exactly what role each set of factors plays is still unknown.

On the *physical* side, there is a temporary upset in homeostasis—as shown in rise in blood pressure, basal metabolic rate, and pulse rate—in the early half of puberty. In part, it is caused by changes in the endocrine balance, resulting from the increased activity of the pituitary gland and the gonads. The upset is pronounced in both sexes during the year before sexual maturity, though it is more dramatically shown in the girl just before the menarche. The more rapid the growth and development in the early part of puberty, the greater the upset in homeostasis (35, 92). There is evidence that some of the stresses and strains occurring at puberty are due to poor eating habits, which affect nutritional status (92, 93).

On the *social* side, group expectations and pressures have a long-lasting influence on the pubescent's behavior and attitudes. As the child grows bigger and increasingly resembles an adult, there will be changes in his status in the home, the school, and the community and in his relationship with members of the opposite sex. These changes increase his concern about his changing body, about his relationship with peers, and about his ability to behave in an approved adult way. Many of the attitudes formed at this time *persist* even after the body changes of puberty have been completed and homeostasis has been restored (34, 56).

COMMON EFFECTS OF PUBERTY ON BEHAVIOR

While puberty affects children differently, certain outward expressions of tension are almost universal. These include restlessness, moodiness, withdrawal from family and friends, irritability, rebellion against authority, assertion of independence, critical attacks on others, disinclination to work at home or in school, and a generalized state of unhappiness.

As a result of glandular changes and changes in the size and position of the internal organs, the pubescent child suffers at times from such physical disturbances as digestive upset, finicky appetite, headache, backache, and a general feeling of wretchedness. These disturbances are more common in girls, though few boys escape them completely. They do not predispose the pubescent child to behave in a socially acceptable way. Many children at this time become anemic, owing to poor eating habits more often than to marked changes in blood chemistry. Anemia leads to listlessness and predisposes the child to emotional tension.

COMMON PUBERTY CONCERNS

The pubescent child has a myriad of concerns relating to puberty changes. They fall into two major categories: concerns about normalcy and concerns about sex appropriateness. If a pubescent child deviates in any way from his age-mates, he wonders if he is *normal.* For this reason, both boys and girls are excessively modest. They attempt to keep their bodies completely covered so that their age-mates will not see how well or how poorly developed their bodies are.

A child who deviates, even slightly, from his age-mates in time or rate of maturing worries about his normalcy. The greater the deviation, the greater his concern. If he is ahead of his friends, he wonders why he no longer enjoys their interests and activities. If he lags behind, he wonders if he will ever turn into an adult.

Children have a rather definite concept of what is sex appropriate or attractive in appearance. Their ideals are based on movies, comics, television programs, or examples set by people they yearn to be like. When they do not match their ideals and do not realize that they are still in the middle of a slow maturational process, they fear that they will be sex inappropriate in appearance for the rest of their lives. They become alarmed over the disproportionate size of the nose, the hands, and the feet and fear that they will never measure up. Some of the sex differences in negative-phase behavior may be traced to the fact that girls are usually less satisfied with their appearances than boys.

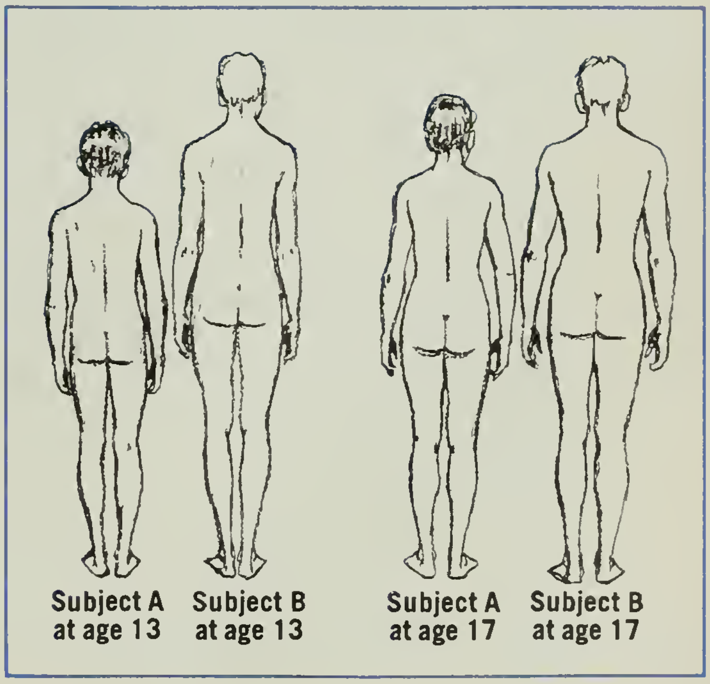
LONG-TERM EFFECTS OF PUBERTY CHANGES

If the unfavorable behavior and attitudes of puberty disappeared when homeostasis was restored, they would not be serious, although puberty would still be a difficult time for the child and all who had to live and work with him. Studies have revealed, however, that the undesirable traits and behavior patterns persist and often grow worse with the passage of time (36, 56). This subject will be discussed in Chapter 10.

The most persistent unfavorable effect of puberty comes from deviant age of sexual maturing. The late maturer is likely to suffer more psychological damage than the early maturer. Eichorn (36) has explained why this damage occurs:

> *Adults and peers may react first to the physical appearance of the early-maturer and give him tasks and privileges ordinarily reserved for older individuals. Often he is able to meet the challenge, and in so doing, he confirms their impression, increases his own skill, and derives personal satisfaction. If he was also larger than his age-mates before puberty, this circular process may have been recurring for some time.*
>
> *Conversely, the late-maturer's feelings of inferiority and dependency have a realistic basis for many years. He is less able physically and has greater need for succorance from others. If he feels resentment at the childish status and treatment, he may express it in rebellious, impulsive behavior. Much of the exuberance and impulsivity of the late-maturer, however, may simply be that which is characteristic of most young animals. . . . Unfortunately, these patterns and attitudes, while perhaps appropriate and successful coping devices during childhood and early adolescence, may be maintained when they are no longer adaptive. Attitudes and*

Figure 6–6. Influence of age of maturing on body build. Note the differences in body build for the physically retarded boy (A) and the physically accelerated boy (B) at both ages. (Adapted from N. Bayley, Individual patterns of development, Child Develpm., *1956,* **27**, *45–74. Used by permission.)*



behavior which were once a function of ability and status, have become habitual and now reduce performance and status.

Deviant sexual development affects boys and girls differently, both at puberty and afterward. For boys, early maturing is socially advantageous, while for girls, it is not. Superior height, weight, and strength add to a boy's athletic ability and give him prestige in the eyes of peers of both sexes. By comparison, the early-maturing girl often acquires the reputation of being "fast." This affects her social adjustments then as well as later. The late-maturing girl escapes these social problems, while the late-maturing boy is deprived of the sources of recognition and prestige that come from being a good athlete.

Health Conditions

The child's general health condition is reflected in his appearance as well as in the quantity and quality of his behavior. One can make a fairly good estimate of a child's health just by looking at him and observing his behavior.

In *appearance,* practically all healthy children have certain common characteristics. The mucous membranes (especially of the lips) are definitely pink; the facial expression is serene or happy, often radiant; the eyes are bright and responsive; the skin is smooth and elastic; the limbs are rounded because of a sufficient layer of subcutaneous fat; the muscles are well formed, and their tonus is good; the stance is well balanced and posture is erect; the limb muscles are almost straight; the spine is straight; the shoulder girdles do not droop; the arches of the feet are well formed; and the movements of the limbs and body in walking and running are characterized by elasticity, vigor, and poise.

By contrast, the child whose health is poor is either underweight or soft and flabby; his posture is poor, his shoulders are rounded, his legs tend to be bowed, and his teeth are likely to be carious. He is usually shorter than one would expect from his family background, and his growth is at a slower rate than is normal for his age.

The *behavior* of the child is a good indication of the current state of his health. The healthy child is alert, full of energy, and anxious to be on the go. When given a choice of play activities he will prefer those which require bodily activity. The child in poor health will select sedentary activities, such as watching television or going to the movies.

Health Variations in Childhood. As Bayer and Snyder have pointed out, "Every period of childhood has its special health hazards, none of them. . . too serious when ordinary care is given. Only a small percentage of children become afflicted with permanent ill health" (9).

During babyhood, diseases are frequent and sometimes fatal. From 3 to 6 or 8 years of age, most children are subject to a series of quarantines for different childhood diseases, such as mumps, measles, and chicken pox. Normally, from 6 or 8 years to the onset of puberty is a healthy age, when physical strength and endurance are adequate to permit the boy or girl to engage in active play for hours at a time without noticeable fatigue. In the early part of puberty, before sexual maturity, poor health is characteristic. The child is besieged with headaches, backaches, digestive disturbances. He is listless, and may be anemic as a result of glandular upsets. Certain illnesses are regarded as "typical" for certain ages.

Psychosomatic Illness. All children at some time or other complain of "not feeling well" in order to escape an unpleasant duty or avoid punishment. How well developed imaginary invalidism—or psychosomatic illness—is in childhood has not yet been determined. It occurs more frequently during adolescence than during childhood. In an analysis of physical complaints without organic basis, it was found that pains were rarely simulated just to gain attention. In most cases, complaints of illness were used to ameliorate distressing or intolerable situations. A number of physical disturbances, such as anorexia nervosa, enuresis, diabetes, asthma, allergy reactions, and ulcerative colitis, often seem to reflect a poor parent-child relationship or the child's insecurity in the relationship (99, 101).

Illness-prone Children. Some children are illness-prone in the sense that they seem to have more than their share of illness and tend to be sicker, when they are ill, than other children. Studies reveal that the cause may be physical or psychological. Children who had a poor prenatal *environment* or whose birth was difficult have the most trouble adjusting to postnatal life. Children whose nutrition is good, before and after birth, tend to be healthier and less illness-prone. Birth order is said to be related to illness-proneness, with firstborn children less subject to illness than those born later (15, 29, 73).

Unfavorable *psychological* factors appear to predispose a child to illness. Young babies who are nervous and high-strung have great difficulty adjusting to postnatal life; they are more likely to experience feeding difficulties and digestive disturbances than calm babies. Young children brought up by authoritarian child-training methods tend to be more nervous and sickly than those brought up by more democratic methods. If the child is deprived of "mothering" during the early years of life, he is likely to have more illness then and as he grows older than the child whose home life has been emotionally more normal. Alcock has pointed out that the "asthmatic personality appears characterized by a high degree of emotional tension without appropriate release" (3).

Effects of Illness on Development. Regardless of whether an illness is physical or psychological in origin, it brings changes in development, behavior, attitudes, and personality. The illness itself may be chronic or transitory, mild or intense. It may be brief or prolonged. How severe and how lasting the effects will be depends largely on the child's attitudes. His attitudes are affected by those of his parents. When parental attitudes toward a child's illness are wholesome and when family life is carried on in a regular fashion, the effects of the illness will be far less damaging than when parents regard illness as a calamity or blame the child for the inconvenience it causes.

It has been found that the severity of asthma is influenced more by the overprotective attitude of mothers than by the presence of house dust or other allergy-producing stimuli (12, 99). Studies of children of different ages have revealed many *specific* effects of illness on the child's development. The most important are shown in Box 6-5.

Physical Defects

Physical defects, even when slight, limit what the child can do. Podolsky has said that "any kind of physical defect is a definite mental hazard" (95).

Defects may be hereditary, or they may result from an unfavorable prenatal environment or an injury during birth. Some are caused by illness or accident. A few defects, such as stuttering and slurring, are psychosomatic, mental or emotional in origin. This subject will be discussed in detail in the chapter on speech development. Some are "phantom handicaps"—imaginary defects. The children imagine they are handicapped and, as a result, are excused from doing the things they do not want to do.

Certain physical defects are especially common. These include dental caries, visual and auditory impairments, orthopedic disabilities, central-nervous-system disorders, heart disturbances, speech defects, harelips, cleft palates, facial or bodily birthmarks, abnormalities of physique (such as webbed fingers, cross-eyes, hunchbacks, a fifth finger, or malformed ears) and scars or contractures resulting from burns. Some of these can be cured or minimized, others can be covered up, and some become progressively worse with time.

EFFECTS OF PHYSICAL DEFECTS

People with physical defects realize that they are different and are beset with feelings of inferiority or inadequacy. Scientific attention was first directed to this problem by Alfred Adler. According to his theory of "organ inferiority," neuroses and other manifestations of maladjustment are compensations for organ inferiority. Adler further claimed that feelings of inferiority, stemming from organ inferiority, lead to a desire to excel. This gives rise to the "will to power," a common form of compensation for an inferiority complex. Stated in another way, a child who suffers from a physical defect develops an inferiority complex; because such a complex gives the child little happiness or satisfaction, he compensates for it by trying to achieve prestige, superiority, or fame—all of which will give him the satisfaction denied by his physical handicap (2).

It is unquestionably true that *some* children do try to compensate in this way. But *most* children do not. On the contrary, most children who suffer from feelings of inadequacy develop unhealthy personality patterns which lead to poor personal and social adjustment rather than to success.

Variations in Effects of Physical Defects. Every physically handicapped child is deprived of certain experiences. As a result, he is psychologically damaged. The extent of the damage varies, however, from child to child.

Severity of the Defect. The severity of the defect will influence the child's reaction to it. His reaction, in turn, will be a measure of its damage. If he reacts with bitterness and feelings of defeat, the damage will be great. The better the defect can be camouflaged, the less the child will have to revise his body-image and the less harmful the effects will be.

Time of the Defect. Should the defect occur at birth or in babyhood, the child will become accustomed to it and make better adjustments than if it occurs later. If crippling occurs early in life, for example, the child can adjust to the dependency necessitated by the crippling better than if it occurred after he had learned to be independent.

Limitations Caused by the Defect. The degree of restriction of activity will greatly influence the child's attitude toward his defect and thus the effect it has on him. The child who is blind or crippled, for example, will be more restricted than the child who is deaf or suffers from a facial disfigurement.

Attitudes of Others. If other people feel sorry for a child with a physical defect, he will pity himself and develop feelings of martyrdom. If they reject him, he will reject himself. If, on the other hand, they accept his defect and treat him as they treat other children, he will develop a healthier and more acceptant attitude. When the defect is readily apparent, people are generally sympathetic in their treatment of the child. If the defect is not readily apparent, however, as in the case of hearing difficulties, they often misinterpret the child's actions as an indication of stupidity, rudeness, or lack of interest.

Child's Attitude. Different children react differently to their handicaps. Some recognize and accept their defects, though most try to pretend that they are not different from other children. Many feel guilty about a disability, especially if it resulted from engaging in a forbidden activity or one they were warned against.

Recognition of Being Different. As long as a severely handicapped child has children who are not handicapped in his environment, he will compare himself with them. The more he recognizes that he is different, the more psychologically damaging his defect will be. If he attends a special school for children with similar handicaps, he may escape some of this psychological damage.

AREAS OF INFLUENCE OF PHYSICAL DEFECTS

The repercussions of physical defects are felt in many specific areas of development.

Developmental Status. The developmental status of a child suffering from a physical defect is usually below that of the normal child. Since handicapped children are overprotected, they are deprived of learning opportunities and are not motivated to do things for themselves.

School Achievement. The physically handicapped child is often an underachiever in school. This may be either a direct or an indirect result of his defect. A child with poor vision, for example, may not be able to see the blackboard well enough to follow the teacher's instructions; consequently he may do his work incorrectly. A physical handicap affects a child's school achievement indirectly by making him feel lonely and excluded, thus leading to a dislike for school and a lack of motivation to do well.

Play Skills. Physical defects often prevent a child from acquiring the skills needed for play. Thus, he is deprived of social contacts with his peers and feels that others scorn him because of his awkwardness and backwardness. If he is forced to play alone when he wants to play with others, he feels lonely and rejected.

Social Adjustments. Since the physically handicapped child has fewer opportunities to learn how to get along with others, he usually makes poorer social adjustments and behaves in a less acceptable way than the normal child. Being forced out of certain social activities because of his handicap leads to a constriction in interests, boredom, and envy of those who can engage in many activities. Many children with physical defects are doomed to social isolation. Usually, they are ignored rather than actively disliked. A physical handicap, especially when it is apparent to others, makes people uncomfortable; as a result, they avoid the handicapped person (61).

Personality Pattern. It is not uncommon for physically handicapped children to develop undesirable personality patterns. They tend to be withdrawn and unsocial and to have more fears and feelings of guilt than other children. In addition, they often feel that they are different, unloved, and unwanted. This makes them feel inferior. Consequently, they accept many of the negative social attitudes toward the handicapped. As a result, they tend to be depressed, to develop feelings of self-hate, and to acquire inferiority or martyr complexes. This sometimes leads to aggressiveness and impulsiveness, both of which have further unfavorable effects on their personalities (132).

Adjustment Problems. The physically handicapped child is faced with the adjustment problems characteristic of his age and level of development *in addition* to those arising from his handicap. Thus he tends to be less well adjusted than other children of his age. To be well adjusted, the child must recognize and accept his disability. This means that he must not resent the extra help he needs from others; he must adjust his level of aspiration to the level of his capacity and realize that he cannot go as far as he could if he were not handicapped; he must try to learn to be independent but recognize that he is somewhat limited; and he must see that he will have only a few friends, not extensive social contacts.

LONG-TERM EFFECTS OF PHYSICAL DEFECTS

That few children do adjust successfully to their disabilities is shown by the large number of poorly adjusted handicapped adults—most of whom were handicapped children. In studies of adults with physical handicaps who seek employment or rehabilitation, it has been found that many have emotional problems that may interfere with occupational success. Often their emotional problems trace back to childhood years (29).

How physical handicaps affect adjustment in adult years is illustrated by a follow-up of graduates of a school for crippled children. Those who had been socially active in school were very inactive after they left school. They spent their time reading, going to movies, watching television, and playing cards—generally with members of the family. When questioned about their failure to participate in community activities, many claimed they were unable to do so because of the difficulty of getting out to see people or of going to centers of social activity. This led to unhappiness and dissatisfaction with their present lives (20).

Box 6–5

COMMON EFFECTS OF ILLNESS

Physical Growth and Development

Ordinary illnesses seldom have a permanent effect upon growth, but a long and severe illness may stunt the child's growth, if it coincides with a period of rapid development. Most illnesses are accompanied by a temporary loss of weight.

Aftereffects of Illness

Because of inactivity during illness, the muscles lose some of their tone and are easily fatigued. Some illnesses have permanent effects, such as a damaged heart following rheumatic fever or eye defects from measles.

Heightened Emotionality

Illness always upsets homeostasis. This makes the child irritable and more subject than usual to anxieties and temper tantrums.

Social Behavior

The child who is segregated from the peer group during a long illness fails to learn patterns of social behavior at the time his peers are learning them. If he is pampered, he may develop unhealthy attitudes about his own importance.

Limitation on Activities

Illness and recuperation require that activities be restricted. This is frustrating at any age. If the child is unsure of his status in the peer group, he will worry about the effect of his absence on his peer relationships.

Schoolwork

Even though a sick child receives special help from teachers and parents, his schoolwork usually suffers. If his illness has unfavorable effects on his socialization, he may come to dislike school.

Behavior Difficulties

Illness is often the starting point for social-adjustment problems such as finicky eating, and other behavior difficulties. Many children become so accustomed to special attention that they are aggressive and demanding after they recover. This will affect their relationships with the peer group.

Personality Disturbances

Allergies, asthma, and diabetes are especially damaging to personality because they are chronic. They often lead to emotional and dependency problems. Even temporary illness, if severe, may cause personality disturbances.

Accidents

Many of the defects children suffer from are the aftermath of accidents. The most common accidents among children are falls, burns, dislocations, sprains, cuts, animal bites, fractured bones, piercings with instruments, and poisoning.

Some accidents are minor and injure the child only temporarily, some cause permanent damage, and others lead to death. In the childhood years, accidents are the leading cause of death, especially from 2 to 10 years of age. Relatively few deaths are caused by accidents before the age of 2 because the baby and toddler are carefully supervised, and fewer occur after 10, because the older child learns to be more cautious (41, 48, 52, 89).

CAUSES OF ACCIDENTS

Curiosity leads young children to explore, and since their curiosity is not checked by fear, they do not realize the potential dangers in new objects and situations. With experience and increased insight, they become more cautious. Then fear or timidity holds curiosity in check, and accidents are less frequent. Accidents in the home are most likely to occur when the child is *unsupervised.* A busy mother cannot keep her eye on a young child constantly.

Box 6-6

CONDITIONS RESPONSIBLE FOR VARIATIONS IN CHILDHOOD ACCIDENTS

Age

About two-thirds of all childhood accidents occur before age 9. Ages 2 and 3 are the most vulnerable, with 5 and 6 next. The years from 5 to 14 are the most dangerous for fatal accidents.

Sex

Boys at all ages have more accidents than girls, and this tendency increases as they grow older. Four out of ten boys suffer some sort of accidental injury as compared with two of every ten girls. Between 10 and 14 years, boys have nearly three times as many accidents as girls.

Personality

The bright, alert, adventuresome child has more accidents than his less bright, less curious age-mate. Children who are resentful because they are thwarted by strict discipline or feel that they have been unfairly treated by parents, teachers, or peers are especially accident-prone. Boys who have feelings of inadequacy because of sex-inappropriate builds often try to compensate by being daring, and this leads to accidents.

Ordinal Position

Firstborn children tend to have fewer accidents than their siblings, partly because they receive more supervision, partly because they are trained to be more cautious, and partly because they have less self-confidence and are thus somewhat timid.

Time of Day

Among all children, more accidents occur during the afternoon and evening than during the morning. The high-hazard time for young children is from 3 to 6 P.M., when the mother is busy and cannot supervise them carefully and when they are tired, fretful, and quarrelsome. Among older children, the high-hazard time is between 7 and 8 P.M.

Time of Week

The high-hazard days for children's accidents are Thursday through Saturday. The safest day is Sunday, when adults have more leisure time to supervise children.

Weather Conditions

Childhood accidents rise in rainy and stormy weather. In winter, for example, housebound children become bored. If boredom leads to rambunctiousness, accidents often follow.

Place

Older children have more accidents outside the home while younger children have more accidents in the home or yard.

Type of Injury

The part of the body most often injured is the head. The arms and trunk are next, and the legs, least. See Figure 6-7.

When her back is turned, the child may hurt himself in his zest to satisfy his curiosity. The more adults there are in the home to supervise the child, the less likely he is to have an accident. With too much supervision, however, he does not learn to cope with dangerous situations independently (63).

Lack of supervision on playgrounds and in streets is the cause of many of the accidents of older children. Without a parent or teacher to warn them of danger, they do many things on the *impulse of the moment* and are hurt. To prove to themselves and to others how brave and how "masculine" they are, many older boys do foolhardy things, often on a *dare from a peer,* and are injured when they fail to use reasonable caution or common sense. Because the cultural stereotype of sex-appropriate behavior for girls does not include bravery and daring, they are far less likely to have accidents than boys. Certain kinds of accidents are more common than others. In addition, accidents occur more frequently at some ages, in certain circumstances, and among particular kinds of children. Box 6-6 lists the conditions that most often contribute to accidents during the childhood years.

EFFECTS OF ACCIDENTS

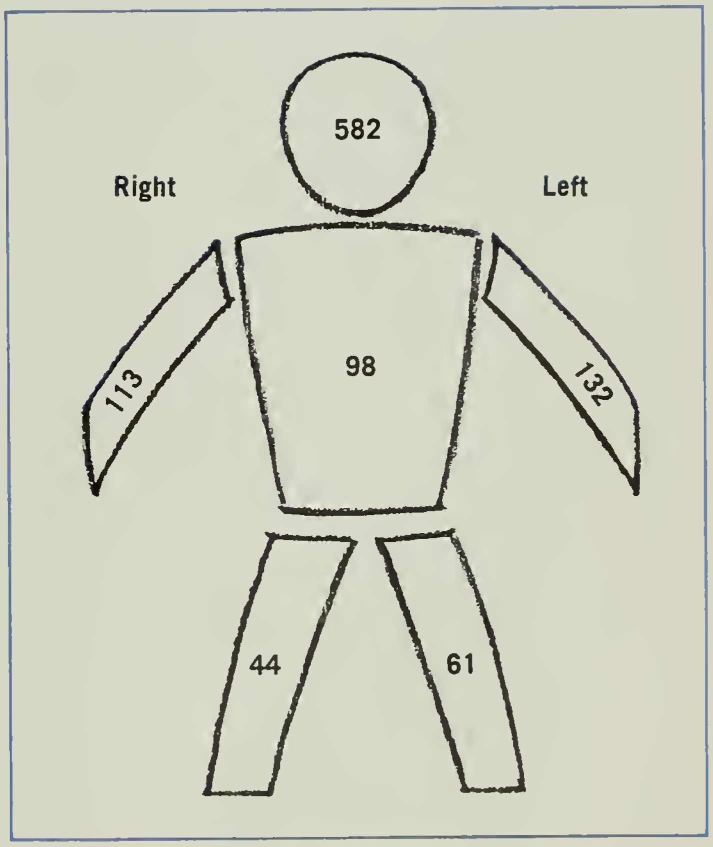
Accidents cause both physical and psychological damage. Even a minor accident may leave a *physical* scar. A small cut on the face, for example, may leave a scar which will make the child very self-conscious when he reaches the appearance-conscious years of adolescence. More serious accidents may maim the child for life or bring about his death.

While some accidents leave no physical scars, all leave *psychological scars.* So even the most minor accident is a source of embarrassment. The child is afraid that people will think him clumsy or careless, and he dreads their teasings or scoldings. Furthermore, he dreads the possibility of repeating the accident. All this intimidates him, and he feels insecure and wonders if there is something wrong with him, especially if he has more accidents than his siblings or friends. His insecurity may make him overcautious and afraid to take chances or face new situations. Even worse, he may develop a generalized anxiety which will make him timid, retiring, and self-effacing in any situation involving new tasks or new people. The attitudes of significant people—especially parents and peers—will determine the extent of the child's psychological damage. If parents are sympathetic and if they try to convince the child that he was not at fault, he will be spared the humilation of feeling that there is something the matter with him.

If the accident occurs when the child does something he has been warned not to do or has been forbidden to do, feelings of guilt, along with other psychological scars, are certain to disquiet him. The more his parents emphasize his naughtiness and the inconvenience and expense the accident has caused, the more guilty and ashamed he will feel.

When an accident results in an injury serious enough to cause bleeding, swelling, or cries of pain, the peer group will usually react with sympathy. If the child is incapacitated by the accident—with a leg or arm in a cast or a bandage in a conspicuous area of the body—he may become a "wounded hero" in the eyes of the group. For a child who has previously enjoyed little attention and prestige in the group, this new found attention more than compensates for the pain or physical discomfort of the accident.

Figure 6-7. Parts of the body most often injured per 1,000 nonfatal childhood accidents reported to the Bureau of Child Health, New York City. (Adapted from H. Jacobziner, Accidents—a major child health problem, J. Pediat., *1955,* **46**, *419-436. Used by permission.)*



Psychological damage from accidents can be more far-reaching and persistent than physical damage. Physical damage is often only temporary, but psychological damage may be permanent. In no other area of physical development are the psychological implications more dramatically shown than in accidents. For that reason, concluding a chapter on physical development with a discussion of childhood accidents serves to highlight the relationship between physical and psychological development.

Highlights of Chapter 6

1. Physical development affects the child directly by determining what he can do and indirectly by influencing his attitude toward himself and others.
2. Normal physical development enables the child to adjust to situations according to social expectations for his age, while deviant development interferes with his adjustment.
3. Growth occurs in orderly and predictable cycles, with varying tempos for different ages and different parts of the body.
4. Height and weight are determined by the growth hormone from the pituitary gland. Body size affects the child's appearance, his behavior, and his self-concept.
5. Changes in the proportions of different body areas, due to different rates of growth, affect the child's appearance, his motor coordination and his maturational status.
6. Bone ossification affects the child's appearance and his behavior, both of which influence his self-concept.
7. The muscle-fat ratio of the body directly influences the type and quality of behavior and indirectly influences the child's reaction to his body build as affected by social attitudes toward it.
8. Temporary teeth affect the child physically by upsetting homeostasis, while permanent teeth affect him psychologically by acting as insignia of maturity and by influencing his appearance and speech.
9. Brain growth influences the level of intelligence, the degree of helplessness, and appearance.
10. The major puberty changes are changes in body size and proportions and the development of the primary and secondary sex characteristics.
11. Because of the rapid and pronounced physical changes that occur at puberty, with their accompanying changes in behavior, interests, and attitudes, every child experiences concerns about normalcy and sex appropriateness.
12. Health conditions influence the child's physical growth, his energy level, the pattern of his development, his emotional states, his social behavior, his schoolwork, and his personality.
13. How greatly a physical defect will affect the child depends on the severity and time of the defect, how much it limits his activities, how others react to it, and how different it makes him from his peers.
14. The psychological effects of accidents are often more damaging and persistent than the physical effects because they undermine the child's self-confidence and often lead to a generalized timidity.

Bibliography

1. Acheson, R. M., and C. W. Dupertuis: The relationship between physique and rate of skeletal maturation in boys. *Hum. Biol.,* 1959, **29,** 167–193.
2. Adler, A., *Individual psychology.* New York Harcourt, Brace, 1924.
3. Alcock, T.: Some personality characteristics of asthmatic children. *Brit. J. med. Psychol.,* 1960, **33,** 133–141.
4. Angelino, H., and E. V. Mech: "Fears and worries" concerning physical changes: A preliminary survey of 32 females. *J. Psychol.,* 1955, **39,** 195–198.
5. Arkoff, A., and H. B. Weaver: Body image and body dissatisfaction in Japanese-Americans. *J. soc. Psychol.,* 1966, **68,** 323–330.
6. Ashcroft, S. C.: The blind and partially seeing. *Rev. educ. Res.,* 1959, **29,** 519–525.
7. Atkinson, R. M., and E. L. Ringuette: A survey of biographical and psychological features in extraordinary fatness. *Psychosom. Med.,* 1967, **29,** 121–133.
8. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders, 1966.
9. Bayer, L. M., and M. M. Snyder: Illness experiences of a group of normal children. *Child Develpm.,* 1950, **21,** 93–120.
10. Bayley, N.: Research in child development: A longitudinal perspective. *Merrill-Palmer Quart.,* 1965, **11,** 183–208.
11. Biller, H. B., and L. J. Borstelmann: Masculine development: An integrative review. *Merrill-Palmer., Quart.,* 1967, **13,** 253–294.
12. Block, J.: Further consideration of psychosomatic predisposing factors in allergy. *Psychosom. Med.,* 1968, **30,** 202–208.

13. Bojlen, K., and M. W. Bentzon: The influence of climate and nutrition on age at menarche: An historical review and modern hypothesis. *Hum. Biol.,* 1968, **40,** 69–85.
14. Bommarito, J. W.: Implications of severe visual handicaps for school personnel. *Teachers Coll. Rec.,* 1969, **70,** 523–534.
15. Breckenridge, M. E., and E. L. Vincent: *Child development,* 5th ed. Philadelphia: Saunders, 1965.
16. Breslin, H. B.: The relationship between the physically handicapped child's self-concept and his peer reputation. *Dissert. Abstr.,* 1968, **29**(4-B), 1493.
17. Brunch, H.: Developmental obesity and schizophrenia. *Psychiatry,* 1958, **21,** 65–70.
18. Byrne, D., O. London, and K. Reeves: The effect of physical attractiveness, sex, and attitude similarity on interpersonal attraction. *J. Pers.,* 1968, **36,** 259–271.
19. Cabak, V., and R. Najdanvic: Effect of undernutrition in early life on physical and mental development. *Arch. Dis. Childh.* 1965, **40,** 532–534.
20. Carlsen, A. H.: Vocational adjustment of physically handicapped students. *Except. Children,* 1957, **23,** 364–367, 398.
21. Centers, L., and R. Centers: Peer group attitudes toward the amputee child. *J. soc. Psychol.,* 1963, **61,** 127–132.
22. Church, J., and L. J. Stone: The early school years. *Children,* 1960, **7,** 113–114.
23. Cohen, J.: The effects of blindness on children's development. *Children,* 1966, **13,** 23–27.
24. Connor, F. P., and I. I. Goldberg: Children with crippling conditions and special health problems. *Rev. educ. Res.,* 1959, **29,** 471–496.
25. Corsini, R. J.: Appearance and criminality. *Amer. J. Sociol.,* 1959, **65,** 49–51.
26. Craig, H. B.: A sociometric investigation of the self-concept of the deaf child. *Amer. Ann. of the Deaf,* 1965, **110,** 456–478.
27. Craske, S.: A study of the relation between personality and accident history. *Brit. J. med. Psychol.,* 1968, **41,** 399–404.
28. Cravioto, J.: Malnutrition and behavioral development in preschool child. *Courrier,* 1966, **16,** 117–127.
29. Cruickshank, W. M., and G. O. Johnson (eds.): *Education of exceptional children and youth,* 2d ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.
30. Cummings, S. T., H. C. Bayley, and H. E. Rie: Effects of the child's deficiency on the mother: A study of mothers of mentally retarded, chronically ill, and neurotic children. *Amer. J. Orthopsychiat.,* 1966, **36,** 595–608.
31. DeWijn, J. F.: Parameters of changing metabolism during growth from age 8 to 18, related to physique and body components. *Child Develpm. Abstr.,* 1970, **44,** no. 3.
32. Douglas, J. W. B., J. M. Ross, and H. P. Simpson: The relation between height and measured educational ability in school children of the same social class, family size and stage of sexual development. *Hum. Biol.,* 1965, **37,** 178–186.
33. Dreizen, S., R. M. Snodgrasse, H. Webb-Peploe, and T. D. Spies: The retarding effect of protracted undernutrition on the appearance of postnatal ossification in the hand and wrist. *Hum. Biol.,* 1958, **30,** 253–264.
34. DuBois, F. S.: Rhythms, cycles, and periods in health and disease. *Amer. J. Psychiat.,* 1959, **116,** 114–119.
35. Dunbar, F.: Homeostasis during puberty. *Amer. J. Psychiat.,* 1958, **114,** 673–682.
36. Eichron, D. H.: Biological correlates of behavior. 62d *Yearb. Nat. Soc. Stud. Educ.,* 1963, part. 1, 4–61.
37. Eichorn, D. H.: Physiological development. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 157–283.
38. Eisenman, R.: Birth order, sex, self-esteem and prejudice among the physically disabled. *J. Psychol.,* 1970, **75,** 147–155.
39. Elliott, R.: Physiological activity and performance: A comparison of kindergarten children with young adults. *Psychol. Monogr.,* 1964, **78,** no. 10.
40. Farina, A., M. Sherman, and J. G. Allen: Role of physical abnormalities in interpersonal perception and behavior. *J. abnorm. Psychol.,* 1968, **73,** 590–593.
41. Fishman, K. D.: Danger: Children at play. *The New York Times,* Sept. 25, 1966.
42. Fuller, G. B., and G. H. Lunney: Relationship between perception and body image among emotionally disturbed children. *Percept. mot. Skills,* 1965, **21,** 530.
43. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. *Genet. Psychol. Monogr.,* 1968, **77,** 169–299.
44. Garn, S. M., and J. A. Haskell: Fat thickness and developmental status in childhood and adolescence. *Amer. J. Dis. Children,* 1960, **99,** 746–751.
45. Garrison, K. C.: *Growth and development,* 2d ed. New York: Longmans, 1959.
46. Genskow, J. K.: Body concept and self-esteem of disabled and non-disabled groups. *Dissert. Abstr.,* 1968, **28,** 4908.
47. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.
48. Goddard, J. L.: Childhood accidents. *Children,* 1959, **6,** 83–85.
49. Heald, F. P., M. Dangela, and P. Brunschyber: Physiology of adolescence. *New England J. Med.,* 1963, **268,** 192–198, 243–252, 299–307, 361–366.
50. Ingwell, R. H., R. W. Thoreson, and S. J. Smits: Accuracy of social perception of physically handicapped and nonhandicapped children. *J. soc. Psychol.,* 1967, **72,** 107–116.
51. Israel, S. L.: Normal puberty and adolescence. *N. Y. Acad. Sci.,* 1967, **142,** 773–778.
52. Jacobziner, H.: Accidents: A major child health problem. *J. Pediat.,* 1955, **46,** 419–436.
53. Jaffee, J.: "What's in a name": attitudes toward disabled persons. *Personnel Guid. J.,* 1967, **45,** 557–560.
54. Jamieson, B. D.: The influence of birth order, family size, and sex differences on risk-taking behavior. *Brit. J. clin. Psychol.,* 1969, **8,** 1–8.
55. Johnston, F. E.: Individual variation in the rate of skeletal maturation between five and eighteen years. *Child Develpm.,* 1964, **35,** 75–80.
56. Jones, M. C.: Psychological correlates of somatic develop-

ment. *Child Develpm.*, 1965, **36**, 889–911.

57. Kagan, J.: Body build and conceptual impulsivity in children. *J. Pers.*, 1966, **34**, 118–128.

58. Keeve, J. P.: Perpetuating phantom handicaps in school age children. *Except. Children*, 1967, **33**, 539–544.

59. Ketcham, W. A.: Relationship of physical traits and mental traits in intellectually gifted and mentally retarded boys. *Merrill-Palmer Quart.*, 1960, **6**, 171–177.

60. Kiker, V. L., and A. R. Miller: Perceptual judgment of physique as a factor in social image. *Percept. mot. Skills*, 1967, **24**, 1013–1014.

61. Kleck, R., H. Ono, and A. H. Hastorf: The effects of physical deviance upon face-to-face interaction. *Hum. Relat.*, 1966, **19**, 425–436.

62. Krogman, W. M.: Growth of head, face, trunk, and limbs in Philadelphia white and Negro children of elementary and high school age. *Monogr. Soc. Res. Child Develpm.*, 1970, **35**, no. 3.

63. Kurokawa, M.: Family solidarity, social change, and childhood accidents. *J. Marriage & Family*, 1966, **28**, 498–506.

64. Laycock, F., and J. S. Caylor: Physique of gifted children and their less gifted siblings. *Child Develpm.*, 1964, **35**, 63–74.

65. Lefkowitz, M. M., and J. Cannon: Physique and obstreperous behavior. *J. clin. Psychol.*, 1966, **22**, 172–174.

66. Lerner, R. M.: The development of stereotyped expectancies of body build behavior relations. *Child Develpm.*, 1969, **40**, 137–141.

67. Lerner, R. M., and E. Gellert: Body build identification, preference and aversion in children. *Develpm. Psychol.*, 1969, **1**, 456–462.

68. Linder, R.: Mothers of disabled children: Value of weekly group meetings. *Develpm. Med. & Child Neurol.*, 1970, **12**, 202–206.

69. Longstreth, L. E.: Birth order and avoidance of dangerous activities. *Develpm. Psychol.*, 1970, **2**, 154.

70. Lyons, R. D.: Family strife called factor in stunting growth. *The New York Times*, June 9, 1967.

71. Manheimer, D. I., and G. D. Mellinger: Personality characteristics of the child accident repeater. *Child Develpm.*, 1967, **38**, 491–513.

72. Marcus, I. M., W. Wilson, I. Kraft, S. Swander, F. Sotherland, and E. Schulhofer: An interdisciplinary approach to accident patterns in children. *Monogr. Soc. Res. Child Develpm.*, 1960, **25**, no. 2.

73. Martin, P. C., and E. L. Vincent: *Human development.* New York: Ronald, 1960.

74. Marshall, W. A., and J. M. Tanner: Variations in pattern of pubertal changes in girls. *Arch. Dis. Childh.*, 1969, **44**, 291–303.

75. Masterson, J. G.: True precocious puberty. *Ann. N. Y. Acad. Sci.*, 1967, **142**, 779–782.

76. Meredith, H. V.: Body size of contemporary groups of preschool children studied in different parts of the world. *Child Develpm.*, 1968, **39**, 335–377.

77. Meredith, H. V.: Body size of contemporary groups of eight-year-old children studied in different parts of the world. *Monogr. Soc. Res. Child Develpm.*, 1969, **34**, no. 1.

78. Meredith, H. V.: Body size of contemporary youth in different parts of the world. *Monogr. Soc. Res. Child Develpm.*, 1969, **34**, no. 7.

79. Meredith, H. V.: Body size of contemporary groups of one-year-old infants studied in different parts of the world. *Child Develpm.*, 1970, **41**, 551–560.

80. Meyer, A. E., R. Golle, and W. Weitemeyer: Duration of illness and elevation of neuroticism scores. *Psychosom. Res.*, 1968, **11**, 347–355.

81. Miklashovskaya, N. N.: Sex differences in the growth of the head and face in children and adolescents. *Hum. Biol.*, 1969, **41**, 250–262.

82. Mochizuki, M.: A study about the relationship between the mental tempo and body types. *Child Develpm. Abstr.*, 1970, **44**, no. 12.

83. Montagu, A.: *Human heredity.* New York: Harcourt, Brace & World, 1959.

84. Moorrees, C. F. A., E. A. Fanning, and E. E. Hunt: Formation and resorption of 3 deciduous teeth in children. *Amer. J. phys. Anthrop.*, 1963, **21**, 205–213.

85. More, D. M.: Developmental concordance and discordance during puberty and early adolescence. *Monogr. Soc. Res. Child Develpm.*, 1953, **18**, 1–128.

86. Murstein, B. I.: The effect of long-term illness of children on the emotional adjustment of parents. *Child Develpm.*, 1960, **31**, 157–171.

87. *New York Times* Report: Child's time of peril 3 to 6 P.M. *The New York Times*, Jan. 6, 1966.

88. *New York Times* Report: 5- to 14-age group held mishap prone. *The New York Times*, July 6, 1967.

89. *New York Times* Report: Study on babies analyzes falls. *The New York Times*, July 7, 1968.

90. *New York Times* Report: Taller and huskier young Japanese are attributed to increase of protein in diet since World War II. *The New York Times*, May 17, 1970.

91. Nisbett, R. E.: Birth order and participation in dangerous sports. *J. Pers. soc. Psychol.*, 1968, **8**, 351–353.

92. Parker, E.: *The seven ages of woman.* Baltimore: Johns Hopkins, 1960.

93. Peckos, P. S.: Nutrition during growth and development. *Child Develpm.*, 1957, **28**, 273–285.

94. Pinkerton, P.: Parental acceptance of the handicapped child. *Develpm. Med. & Child Neurol.*, 1970, **12**, 207–212.

95. Podolsky, E.: How the child reacts to his physical defects. *Ment. Hyg. N. Y.*, 1953, **37**, 581–584.

96. Rahe, R. H., and R. J. Arthur: Life-change patterns surrounding illness experience. *J. psychosom. Res.*, 1968, **11**, 341–345.

97. Rakoff, A. E.: Menstrual disorders of the adolescent. *Ann. N. Y. Acad. Sci.*, 1967, **142**, 801–806.

98. Rauh, J. L., D. A. Schumsky, and M. T. Witt: Heights, weights, and obesity in urban school children. *Child Develpm.*, 1967, **38**, 515–530.

99. Rees, L.: The significance of parental attitudes in childhood asthma. *J. psychosom. Res.*, 1963, **7**, 181–190.

100. Richardson, S.A., and J. Royce: Race and physical handicap in

children's preference for other children. *Child Develpm.*, 1968, **39**, 467–480.

101. Robbins, P. R.: Personality and psychosomatic illness: A selective review of research. *Genet, Psychol. Monogr.*, 1969, **80**, 51–90.

102. Rosen, G. M., and A. O. Ross: Relationship of body image to self-concept. *J. consult. clin. Psychol.*, 1968, **32**, 100.

103. Rusk, H. A.: Rubella immunization, *The New York Times*, Dec. 13, 1970.

104. Schachter, S.: Obesity and eating. *Science*, 1968, **16**, 751–756.

105. Schauffler, G. C.: Dysmenorrhea in and near puberty. *Ann. N.Y. Acad. Sci.*, 1967, **142**, 794–800.

106. Scrimshaw, N. S.: Early malnutrition and central nervous system function. *Merrill-Palmer Quart.*, 1969, **15**, 375–388.

107. Sigurjonstottir, T. J., and A. B. Hayles: Precocious puberty. *Amer. J. Dis. Children*, 1968, **115**, 309–321.

108. Simon, M. D.: Body configuration and school readiness. *Child Develpm.*, 1959, **30**, 493–512.

109. Singer, J. E., and P. F. Lamb: Social concern, body size, and birth order. *J. soc. Psychol.*, 1966, **68**, 143–151.

110. Slovic, P.: Risk-taking in children: Age and sex differences. *Child Develpm.*, 1966, **37**, 169–176.

111. Smith, D. E., and J. R. Chapel: Reading readiness. *Reading Horizons*, 1970, **10**. 59–62.

112. Sontag, L. W.: Some psychosomatic aspects of childhood. *Nerv. Child*, 1946, **5**. 296–304.

113. Staffieri, J. R.: A study of social stereotype of body image in children. *J. Pers. soc. Psychol.*, 1967, **7**, 101–104.

114. Stone, L. J., and J. Church: *Childhood and adolescence*, 2d. ed. New York Random House. 1968.

115. Strongman, K. T., and C. J. Hart: Stereotyped reactions to body build. *Psychol. Rep.*, 1968, **23**, 1175–1178.

116. Sullivan, W.: Boys and girls are now maturing earlier. *The New York Times*, Jan. 23, 1971.

117. Tanner, J. M. Physical growth. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d. ed. New York: Wiley, 1970, vol. 1, pp. 77–155.

118. Titley, R. W., and W. Viney: Expression of aggression toward the physically handicapped. *Percept. mot. Skills*, 1969, **29**, 51–56.

119. Tyler, F. T.: Organismic growth: Some relationships within the individual among cycles of growth in physical characteristics. *Child Develpm.*, 1957, **28**, 55–63.

120. Valadian, L., H. C. Stuart, and R. B. Reed: Studies of illness of children followed from birth to eighteen years. *Monogr. Soc. Res. Child Develpm.*, 1961, **26**, no. 3.

121. Vincent, E. L., and P. C. Martin: *Human psychological development*. New York: Ronald. 1961.

122. Waldrop, M. F., F. A. Pedersen, and R. Q. Bell: Minor physical anomalies and behavior in preschool children. *Child Develpm.*, 1968, **39**, 391–400.

123. Walker, R. N.: Body build and behavior in young children: I. Body build and nursery school teachers' ratings. *Monogr. Soc. Res. Child Develpm.*, 1962, **27**, no. 3.

124. Weiss, J. H.: Birth order and asthma in children. *J. psychosom. Res.*, 1968, **12**, 137–140.

125. Whiteman, M., and I. F. Lukoff: Attitudes toward blindness and other physical handicaps. *J. soc. Psychol.*, 1965, **66**, 135–145.

126. Whiting, J. W. M., T. K. Landauer and T. M. Jones: Infantile immunization and adult stature. *Child Develpm.*, 1968, **39**, 59–67.

127. Wingerd, J.: The relation of growth from birth to two years to sex, parental size and other factors, using Rao's method of transformed time scale. *Hum. Biol.*, 1970, **42**, 105–131.

128. Witryol, S. L., and J. E. Calkins: Marginal social values of rural school children. *J. genet. Psychol.*, 1958, **92**, 81–93.

129. Young, H. B., A. Zoli, and J. R. Gallagher: Events of puberty in 111 Florentine girls. *Amer. J. Dis. Children*, 1963, **106**, 568–577.

130. Zahran, H. A.: A study of personality differences between blind and sighted children. *Brit. J. educ. Psychol.*, 1965, **35**, 329–338.

131. Zion, L. C.: Body concept as it relates to self-concept. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1965, **36**, 490–495.

132. Zunich, M., and B. E. Ledwith: Self-concepts of visually handicapped and sighted children. *Percept. mot. Skills*, 1965, **21**, 771–774.

BURK UZZLE—MAGNU

CHAPTER SEVEN Motor Development

ONE OF THE OUTSTANDING characteristics of the human infant is his complete helplessness. Pressey and Kuhlen have written: "The newborn infant is a strangely incoordinated, helpless mite of humanity. Its very first years are devoted to the fascinating but difficult problem of getting control of its own body" (88).

During the first 4 or 5 years, the child gains control over *gross movements*. These movements involve the large areas of the body used in walking, running, jumping, swimming, and so on. After 5 years of age, major development takes place in the control of *finer coordinations,* which involve the smaller muscle groups used in grasping, throwing and catching balls, writing, and using tools.

Unless environmental obstacles or physical or mental handicaps interfere with normal motor development, the 6-year-old will be ready to adjust to the demands of school and to participate in the play activities of his peers. Society expects this of the child. Some of the most important developmental tasks of the preschool and early school years consist of the development of motor skills based on the coordinated use of different teams of muscles. (See Chap. 3 for a list of the developmental tasks of early childhood.)

The child who measures up to social expectations makes good personal and social adjustments unless some personality obstacle stands in his way. The child who falls below social expectations, on the other hand, develops feelings of personal inadequacy which weaken his motivation to try to learn what his age-mates have already learned.

Importance of Motor Development

Being able to control his body as well as, if not better than, his peers is important to a child for a number of reasons, the most important of which are shown in Box 7–1. Figure 7–1 shows how motor development contributes to the child's development.

In numerous longitudinal studies, groups of babies and young children have been tested and observed over a period to see when certain forms of motor behavior appear and to discover whether these forms are similar for other children of the same age. Extensive studies show that various motor performances involving the arms, wrists, and fingers, such as reaching, grasping, and thumb opposition, develop in a predictable sequence (3, 5, 90). Many other studies have concentrated on motor performances involving the feet, legs, and whole body, such as walking, jumping, running, and hopping. In addition, a few studies have been made of the age and sequence of development of specific skills, such as climbing inclined boards, using wheel toys—doll carriages and tricycles—and throwing and catching balls (46, 63, 73, 74, 102). From these studies, five important principles of motor development have emerged.

Box 7–1

CONTRIBUTIONS OF MOTOR DEVELOPMENT

Good Health ←

Good health, which is vital to the child's development and happiness, is partially dependent on exercise. If motor coordination is so poor that the child performs below the standards of the peer group, he will derive little satisfaction from physical activities and will have little motivation to take part.

Emotional Catharsis ←

Through strenuous exercise, the child gets rid of pent-up energy and frees his body from the tensions of anxiety and frustration. He is then able to relax both physically and psychologically.

Independence ←

The more the child can do for himself, the greater his self-confidence and happiness. Dependency leads to feelings of resentment and personal inadequacy.

Self-entertainment ←

Motor control enables the child to engage in activities which give him enjoyment even in the absence of playmates.

Socialization ←

Good development contributes to the child's acceptance and provides opportunities to learn social skills. Superior development puts the child in line for a leadership role.

Self-concept ←

Motor control leads to feelings of physical security, which are soon translated into psychological security. Psychological security, in turn, leads to a generalized self-confidence which affects all areas of behavior.

Motor Development Depends on Maturation and Learning. The development of body control parallels the development of the motor areas of the brain. The *cerebellum,* or lower brain, which controls balance, develops rapidly during the early years of life and practically reaches its mature size by the time the child is 5 years old. The upper brain, or *cerebrum* especially the frontal lobes which control skilled movements, likewise develops in the early years.

Skilled movements cannot be mastered until the muscular mechanism of the child matures. The striped or *striated muscles,* which control voluntary movements, develop at a slow rate throughout the childhood years. Voluntary coordinated action is impossible before they are sufficiently mature.

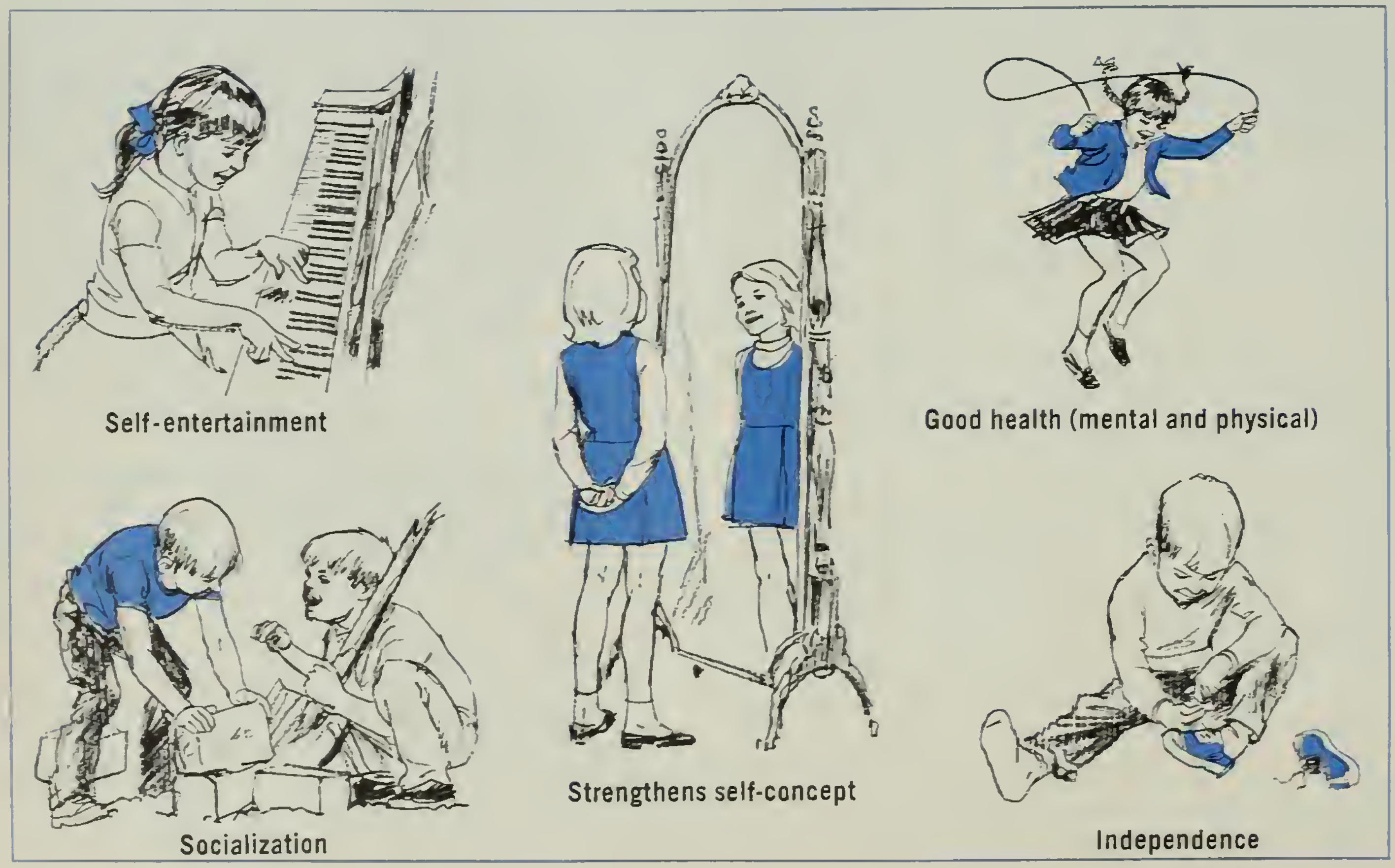
Learning of Skills Cannot Occur Until the Child Is Maturationally Ready. Trying to teach the child skilled movements before his nervous system and muscles are well developed will be wasted effort. This is equally true of practice he, himself, may initiate. Such training may produce some *temporary* gain, but the long-term effects will be insignificant or nil.

Motor Development Follows a Predictable Pattern. Motor development follows the cephalocaudal (head to foot) sequence. Early in babyhood, there is greater movement in the head region than in the rest of the body. As the baby's neuromuscular mechanisms mature, there is more and better controlled movement in the trunk and later in the leg region. Motor development also proceeds in the proximodistal (from main axis to remote areas) direction. In reaching for an object, the baby uses his shoulders and elbows before using his wrists and fingers.

The predictable pattern of motor development is also evident in the change from *mass* to *specific* activities. With the maturation of the neuromuscular mechanisms, mass activity is replaced by specific activities, and gross random movements give way to refined movements which involve only the appropriate muscles and limbs.

The Pattern of Motor Development Follows Predictable Stages. Not all researchers agree on the exact number of stages in motor development, though all do agree that the stages are predictable. Ames and Ilg, for example, distinguished 14 stages in crawling and

Figure 7-1. Motor development contributes to the child's development.



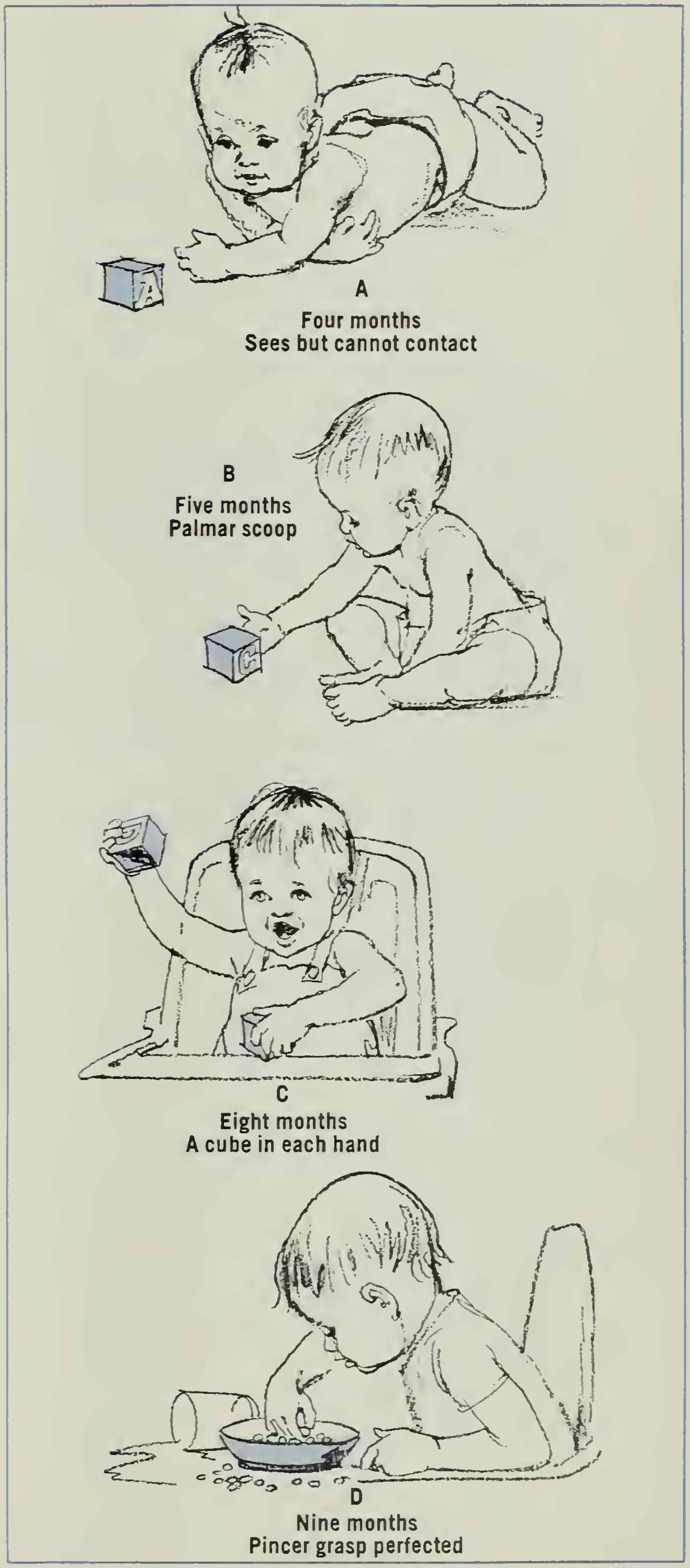
creeping alone (2). Both McGraw and Shirley agree that there are 16 stages in the development that leads up to, and includes, the assumption of an erect posture (75, 100). Halverson's study led him to the conclusion that there are 10 stages in the development of prehension, each distinct from the other but each dependent on the stage preceding it and influencing the stage following it (47). Four stages of this sequence are illustrated in Figure 7-2.

Individual Differences Affect the Rate of Motor Development. Even though motor development follows a pattern that is inflexible in its broader aspects, individual differences occur in the detail of the pattern. These affect the ages at which different individuals reach different stages. Owing to lack of opportunity for practice, for example, a child may be behind schedule in developing control over his hands, and, as a result of encouragement or aid, he may be ahead of schedule in walking. Babies who are precocious in one area of motor development, say, in hand activities, are usually precocious in others. Firstborns tend to be more advanced than their later-born siblings, owing to greater parental encouragement and stimulation, while prematures tend to be retarded (102). There are also sex, racial, and national differences in age of walking (35, 53, 54).

Sequence of Motor Development

Experimental studies of motor development have discovered the normal pattern of stages in achieving muscle control and have indicated the ages at which the average child is able to control different parts of his body. Motor development follows the laws of developmental direction and occurs in four major areas: the head region, the trunk, the arms and hands, and the legs and feet.

Individual differences in the ages at which children achieve muscle control in a given area are by no means the result of differences in intelligence alone. Very often, they are the result of differences in opportunities for learning, in training methods, and in


A
Four months
Sees but cannot contact

B
Five months
Palmar scoop

C
Eight months
A cube in each hand

D
Nine months
Pincer grasp perfected

Figure 7-2. Pattern of development of hand skills. (Adapted from E. L. Vincent and P. C. Martin: Human psychological development. *Ronald, 1961. Used by permission.)*

motivation. The findings of the studies are summarized in Box 7–2.

Studies have also shown predictable patterns in the way children achieve motor control in specific activities. In attaining a sitting position, for example, the baby goes from a dorsal to a sitting position by turning his whole body to a ventral position, then squats on all fours, and finally pushes himself upright. By the second or third year, the child no longer turns the whole body axis but leaves the pelvis in contact with the floor on one side, supporting himself with his arm on that side. By the fourth or fifth year, the child can sit like an adult; the body is rolled up symmetrically, with the aid of the arms on both sides. At first, when the baby sits down, he falls or topples over by giving way in the lower part of his trunk. Gradually, he learns by trial and error, combined with demonstrations, how to bend his knees and slide down instead of keeping his knees stiff and falling over. This mode of getting into a sitting position is normally mastered by the time the baby is 1 year old (75, 93).

Similarly, predictable patterns have been found in body posture and foot positions in early walking. The body is erect and motion comes from the use of the legs alone. As an aid to maintaining equilibrium, the baby's arms are held outright, much like those of a tightrope walker, or are pulled up to the body. The feet are turned outward, and the legs are stiff. There is a rhythmic alternation of the two legs. The head is held sightly forward, and the baby looks straight ahead of him instead of at the floor. This is necessary if balance is to be maintained, though it usually results in many falls. Falls are caused also by poor general coordination and the fact that the baby raises his feet far from the floor and so loses his balance. Figure 7–4 shows the characteristic body posture of the baby in the early stages of walking.

Box 7–2

SEQUENCE OF MOTOR DEVELOPMENT

Head Region

- Ocular pursuit movements: 4 weeks
- "Social" smiles (in response to another's smile): 3 months
- Eye coordination: 4 months
- Holding the head up:
  In a prone position: 1 month
  In a sitting position: 4 months

Trunk Region

- Turning:
  From side to back: 2 months
  From back to side: 4 months
  Complete: 6 months
- Sitting:
  Pulls to sitting position: 4 months
  With support: 5 months
  Without support: 9 months
- Organs of elimination:
  Bowel control: 6 months
  Bladder control: 15 months

Arms and Hands

- Defensive movements: 2 weeks
- Thumb-sucking: 1 month
- Reach and grasp: 4 months
- Grasp and hold: 5 months
- Picking up object with opposed thumb: 8 months

Legs and Feet

- Hitching (backward movement in sitting position—see Fig. 7–3): 6 months
- Crawling (prone body pulled by arms and leg kicks): 7 months
- Creeping:
  On hands and knees: 9 months
  On all fours: 10 months
- Standing:
  With support: 8 months
  Without support: 11 months
- Walking:
  With support: 11 months
  Without support: 13 months

When the baby first starts to walk with support, his steps are short and erratic. They increase in length until the baby is about 15 months old, and thereafter they become quite regular (40). Noticeable changes are also apparent in the width of step. In early stepping, the toes of the two feet are approximately 5 centimeters apart, and the heels do not touch the floor. When the baby begins to walk with support, the width of the step increases sharply. It continues to increase until the end of the second year. Also, as he begins to walk, the whole sole of his foot is placed in contact with the floor. At first, the toes turn outward, but with improvement in walking the feet become parallel.

Motor Skills

After a baby gains control over gross body movements, he begins to develop skills. These are fine coordinations in which the smaller muscles play a major role. In defining "skill," Cronbach (24) writes:

> *A skill can be described in such words as automatic, rapid, accurate, and smooth. It is wrong, however, to think of a skill as some single, perfected action. Any skilled performance, even writing the letter a, is a series of hundreds of nerve-muscle coordinations. A skilled movement is a very complex process involving differentiation of cues and continual correction of errors.*

Motor skills can be divided, roughly, into two major categories: the *gross* muscular skills, such as running, jumping, lifting, and climbing; and the *finer* muscular skills, such as writing, playing musical instruments, or doing skilled manipulatory work. A well-learned skill develops into a *habit.* As Hilgard has described it, a habit is "any sort of smooth-running repetitive activity, composed of recognizable movements patterns . . . A person commonly pays little attention to the details of his habitual performances. . . . Habits . . . are relatively automatic, repeated movement patterns, especially as they are revealed in skilled movements" (52).

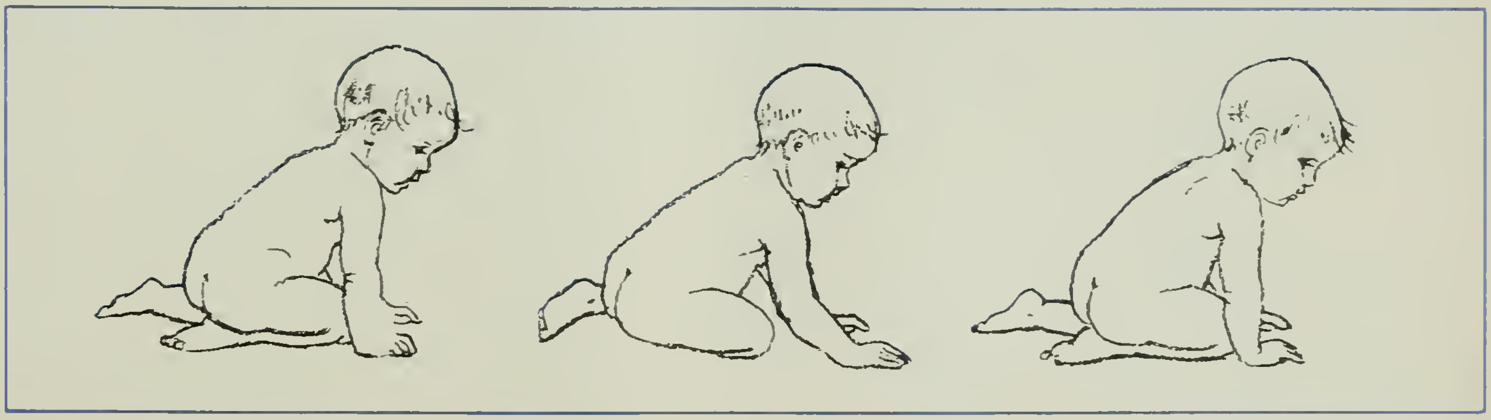
ROLES OF MATURATION AND LEARNING IN SKILLS

Skills will not develop through maturation alone. They must be learned. There is ample evidence, however, that *when* they are learned is as important as *how* they are learned. Learning must, if it is to be effective, be *properly timed.* In emphasizing the importance of timing, Connolly et al. (23) have pointed out:

> *No amount of training can enable a child to perform to a level for which its sensory, muscular and neural systems are not yet ready. The relative importance of maturation and learning depend not only on the age of the subjects but also on the nature of the skill involved.*

In running, jumping, throwing, and catching, children who receive training that is correlated with their maturational readiness are distinctly superior to those who receive no training (13, 97). A study of the effects of training on ball throwing found that in the 3-to 4-year-old group neither those who received training nor those who acted as a control group improved as much as children in the 5- to 6-year-old group. In the latter, the children who received train-

Figure 7–3. Hitching. (Adapted from L. H. Burnside, Coordination in the locomotion of infants, Genet. Psychol. Monogr., *1927, No. 2. Used by permission.)*



ing made a distinct gain over those who received little or no training. The result indicates that the 5- to 6-year-olds were ready to profit by training (31).

The method of learning is as important as readiness. A child may be ready to learn a skill, but if an ineffectual learning method is used, he will fall below the level of efficiency one might expect from the time and effort the child puts in. In Box 7–3 are summarized the important methods of learning skills and the advantages and disadvantages of each method.

IDEAL AGE FOR LEARNING MOTOR SKILLS

When a person is maturationally ready, skills can be learned at *any* age, even in old age. There is reason to believe, however, that childhood is the "ideal" age. The child's body is more *pliable*, and, hence, all learning is easier. He has few previously learned skills that will *conflict* with the learning of a new skill and make the learning more difficult.

Children are, on the whole, more *adventuresome* and eager to try something new than are adolescents and adults. They have less fear of hurting themselves or of being ridiculed if their achievements fall below social expectations. A new skill appeals to them not only because of its novelty but also because of the freedom and prestige they believe it will bring.

Box 7–3

COMMON METHODS OF LEARNING MOTOR SKILLS

Trial-and-error Learning

Having no guidance and no model to imitate, the child tries out different acts at random. This usually results in a skill below the child's capacities.

Imitation

Learning by imitating or observing a model (e. g., a parent or an older child) is faster than learning by trial and error, but is limited by faults in the model. A child will not learn to swim well, for example, if he imitates a poor swimmer. Even if the model is good, the child is not likely to be an efficient observer.

Training

Learning under guidance and supervision in which the model demonstrates the skill and sees that the child imitates it correctly is especially important in the early phases of learning. Faulty movements and bad habits, once established, are hard to eliminate.

Adolescents and adults find *repetition* boring, but children enjoy it. They like to hear the same story time after time or to play with the same toys day after day. All learning requires repetition until the muscle patterns have been trained to perform effectively.

Children have fewer duties and responsibilities than older children and adults. Consequently, they have more *time* to devote to the mastery of a skill. Even if they do have sufficient time later, they are likely to become bored with the repetition that learning the skill requires and never master it fully.

ESSENTIALS IN THE DEVELOPMENT OF SKILLS

To develop skills, the child must have an opportunity to learn, practice, guidance, and motivation. If any one of these essentials is lacking or deficient, the child's development of the skill will fall below his capacity.

Opportunity to Learn. Because learning requires time, the child must be given the opportunity to devote as much time as needed to master the skill. Many children are deprived of learning opportunities by parents who are overprotective and afraid the children will hurt themselves. Others are deprived because they live in an environment which does not provide learning opportunities. This is true of institutionalized children. It may also be true of children from very large families where the mother is too busy to give each child the time and attention he needs.

The level of skill perfection is also influenced by environmental conditions that impinge on learning opportunities. A child who can ice skate only when ice forms on a pond will probably have fewer opportunities to practice, for example, than the child who can skate frequently at an ice rink in any kind of weather.

Practice. According to tradition, "practice makes perfect," but the *quality* of the practice is far more important than the quantity. If the child practices in a blind, hit-or-miss fashion, he will develop bad habits of performance and inefficient movements. With practice, these will become automatic responses, limiting his ability to progress. Should he discover, in time, that his skill is below his capacities, he may be motivated to change. But wanting to change and being able to do so are different things. Once a skill is well learned, it becomes so automatic that changing it is a major task.

Guidance. While practice is essential to the development of a skill, it must be directed practice. The child needs guidance if he is to imitate a model correctly. A good teacher can help him understand the characteristics of a good performance—the end that he is striving for—and the errors that he must avoid. As Hilgard has pointed out, "*Mere* practice is not enough; what is wanted is *good* practice, which means practice with understanding" (52).

The motor skills most likely to develop under guidance are those learned in *school*, in *play groups*, or in *summer camps:* writing, drawing, painting, clay modeling, dancing, and those related to sports. The latter range from such simple movements as throwing a ball to such complicated skills as diving or synchronized swimming. Good teachers direct the child's efforts into the right channels from the start. They are alert to possible errors and are ready to correct errors before repeated practice makes them habitual. Thus, the child shows greater proficiency in skills in which he receives expert guidance. He derives more pleasure from them, and is more anxious to practice them until he reaches a proficiency that closely approaches his level of aspiration.

Motivation. For a child to be willing to invest time and effort in developing a skill, he must be motivated. Without this driving force, his interest will lag and, with it, his efforts.

Common sources of motivation are the *personal satisfaction* the child obtains from the activity, the *independence* it gives him, or the *approval* he wins from significant people, especially parents and teachers. Other sources of motivation are the *value of the skill* itself, whether it is a means of gaining independence or of getting high grades in school, and the *prestige* it gives the child in the peer group. Some children use motor skills as a *compensation* for feelings of inadequacy in other areas, especially in schoolwork.

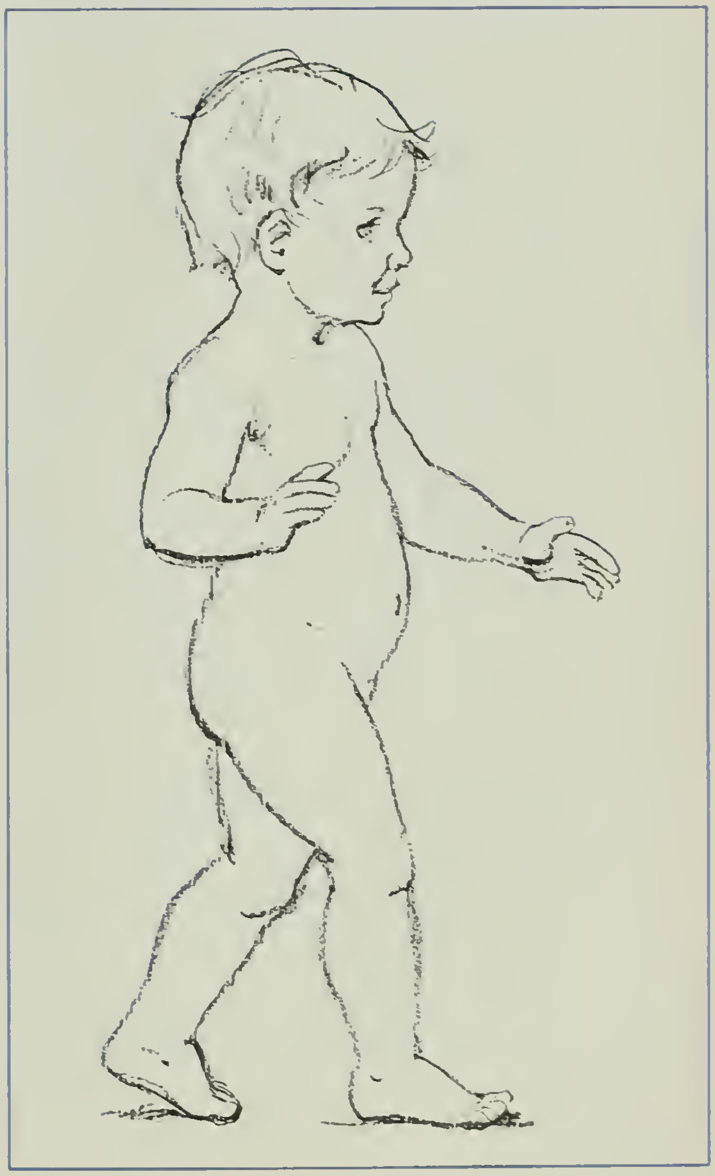
One of the most serious threats to motivation is the tendency of children to set their *levels of aspiration too high*. Children base their levels of aspiration partly on curiosity—they want to find out if they can do what they observe others doing—and partly on past successful experiences. Even the most complicated skill looks easy to a child as he watches a competent person perform it with grace and accuracy. He has no appreciation of how complex the skill is or of how long the person worked to perfect it. When the child tries to perform the skill himself, he realizes that it is more difficult than it looked. He sets his goals lower and still finds the skill too complicated. After a while, he is likely to become discouraged and want to give up.

Almost as serious a threat to motivation is lack of competition with other children. The child who has an older sibling or playmate whose skills are on a slightly higher level than his tries to measure up to the standard set by the older child. Because twins spend most of their time together, they lack this kind of stimulation, and that partly explains why they tend to lag behind in the development of skills (26, 68).

IMPROVEMENT IN MOTOR SKILLS

In the early stages of learning a skill, body movements are clumsy and uncoordinated, and many unnec-

Figure 7-4. Body posture in early walking. (Adapted from L. H. Burnside, Coordination in the locomotion of infants. Genet. Psychol. Monogr., *1927, No. 2. Used by permission.)*



essary movements are made. When a child is learning to throw a ball, for example, he throws it with his whole body. He wrinkles up his face, swings his trunk and legs, and works his arms and hands independently. With continued practice, he improves his skills and his movements become graceful, rhythmic and coordinated. The individual movements become fused into a pattern of action. As Breckenridge and Vincent (13) have pointed out:

> *The clumsiness of the eighteen-month-old child in walking passes into the awkward, flatfooted run of the two-year-old; and this passes into the increasing skill and balance of the three- and four-year-old; but one seldom sees the flow and ease of movement which are referred to as grace in walking or running until the child is five. So it is with roller skating or bicycle riding.*

As skills develop, speed, accuracy, and economy of movement increase, much to the child's satisfaction. Self-assurance grows, along with motivation to make further improvement through continued practice. *Speed* increases at a fairly uniform rate throughout childhood and up to the sixteenth or eighteenth year; the increase is greatest in the early childhood years and then slows down as the child approaches puberty. *Accuracy,* as measured by laboratory tests of tracing and aiming at a target, improves up to 13 or 14 years and then comes to a standstill. The greatest increase in accuracy comes early in childhood. The 6-year-old child, for example, is nearly twice as accurate in his movements as the 3-year-old (65, 123). *Steadiness,* as measured by how little movement occurs when the finger, hand, arm, or whole body is held as nearly motionless as possible, improves with age. The period of greatest improvement has not yet been determined. *Strength* increases with physical development, but not markedly until puberty, when there is rapid growth in the size of the muscles (64).

SEX DIFFERENCES IN MOTOR SKILLS

No significant sex differences in motor development have been found during the early years if boys and girls are given equal training, encouragement, equipment, and opportunities for practice (35). As a result of cultural pressures, sex differences in motor skills begin to appear around the kindergarten age, however, and become more and more marked as children grow older.

Cultural pressures influence sex differences in skills mainly by limiting learning opportunities. Among elementary school children, boys are generally superior to girls in skills requiring strength and endurance—skills which are considered more sex appropriate for boys. In ball throwing, boys show greater gains than girls primarily because boys receive more encouragement to become proficient in this skill (31, 35).

STUNTING

Once a child learns a skill well enough to enjoy it, he usually begins to "stunt." After mastering the ability to walk, the young child starts to walk on low fences or to walk backward or sideways. No sooner has he learned to ride a tricycle than he tries riding while standing up or sitting backward. The older child stunts also, but for him the pleasure of the acitvity itself is not so important as the attention it draws. The successful accomplishment of a dare has great prestige value for the child (124).

PROBLEMS CREATED BY MOTOR SKILLS

While motor skills give the child independence, they sometimes create new problems. The child who is able to walk, to explore his environment, and to manipulate mechanical devices may be injured if he has not developed enough caution to control his desire to try out his newly acquired skills. When anxious parents attempt to curb his actions, the child resents their interference, and this leads to parent-child friction.

The child's acquisition of skills often leads to friction with siblings. As long as a child is helpless, he waits for others to initiate play with him, but when he has enough motor control to manipulate toys, he will no longer be content to sit and wait. If his siblings are older than he, they may resent his interference; if younger, they are likely to resent his attempts to take away their toys and then not include them in his play.

Common Motor Skills in Childhood

Some skills are commonly found among all children in a given culture because of similar learning experiences and adult expectations. In our culture, every child is expected to learn to feed and dress himself, to read and write, and to play the games approved by the social group with which he is identified. Furthermore, he is expected to learn these skills at approximately the same age that other children learn them. They are among the developmental tasks of childhood.

HAND SKILLS

Control of the muscles of the arms, shoulders, and wrists improves rapidly during the childhood years and almost reaches the adult level of perfection by the time the child is 12 years old. Control of the fine muscles of the fingers, by contrast, develops at a slower rate. The control necessary for speedy writing or the playing of musical instruments is not normally attained until children are 12 or older (6, 110).

Studies of the pattern of development of different skills reveal that most children pass through similar stages in their mastery of specific hand skills.

Self-feeding. During the latter part of his first year, the baby tries to hold his bottle or cup and reaches for the spoon with which he is being fed. By the age of 8 months, he can hold his bottle after it has been placed in his mouth; a month later, he can remove the bottle as well as put it back. By the end of the first year, he can hold his cup momentarily and will try to feed himself with a spoon. He usually spills most of the food as he carries it to his mouth, but with practice, he spills less and less. At first, he holds the cup with both hands, but gradually learns to hold it with only one.

By the end of the second year, the young child uses his fork as well as his spoon. During the third year, he can spread butter or jam on his bread with a knife. A year later, he may have mastered the complicated skill of using his knife to cut with. By 10 years of age, he should have good control of his eating utensils and should require only occasional help.

Self-dressing. It is easier for a little child to pull off his socks and shoes than to put them on; the motor skill involved in the former is much less than in the latter. The period of most rapid improvement in dressing is between 1½ and 3½ years. By the time the child is 5 years old, he should be able to dress himself completely, with the exception of tying the bowknot on his shoes. This he generally learns to do by the age of 6.

Eye-hand coordination is necessary until the child learns to dress himself so automatically that he can do so by "feel" alone. Only after the skilled movements involved in dressing are well developed, around the sixth year, can the child's hands manipulate buttons, zippers and buckles without the aid of the eyes to guide the hands.

Self-grooming. Grooming skills develop along with dressing skills. The baby will take a hairbrush and try to brush his hair even before he can walk. Not before 2 or 3 years of age, however, can he brush his hair without rumpling it. By the time he reaches kindergarten age, he should be able to brush and comb his hair successfully, though he will need help in getting a straight part for a year or so longer.

A baby will try to bathe himself, using sponge or washcloth to run water over his face and body. Most of his early attempts at self-bathing, however, are limited to splashing the water and playing with the soap and sponge. Toward the end of the second year, the young child settles down to the business of bathing himself; he covers most of the front of his body but will be unable to wash his back until he is 6 or 7.

Brushing the teeth is a game for the young child, especially if he likes the taste of the toothpaste. By the time he acquires all his baby teeth, during the middle of his third year, he is able to brush them with little or no help.

Writing. Studies of writing show that the development of this skill follows a fairly definite pattern in which there is a clear-cut gradient in the age changes. Up to 1 year, the baby bangs and scribbles with his pencil. By 18 months, he will scribble in the middle of the page, and by 3 years, he will attempt to make simple symbol units, though these are scarcely recognizable as letters. On the average, the body is not biologically ready for handwriting before the child is approximately 6 years old. Until that age, the nerves and muscles of the fingers, hand, wrist, and arm are not developed enough to make the fine coordinations needed in writing. In his early attempts at writing, the child moves his hand from the lower right-hand corner of the paper to the center, then to the top center, and finally to the top left. This final position comes between the seventh and eighth years (2).

Copying. Copying even the simplest geometric figures from a model is very difficult for a young child because it requires not only control over the finer muscles of the hand and arm but also the ability to perceive relationships. Thus it is a skill that cannot be developed until the muscles, nerves, and brain have reached the developmental status needed for such an intricate act. Because there is a relationship between neuromuscular development and intelligence, copying is used as a measure of intelligence in some of the intelligence tests for the early age levels (6, 24). In the Stanford Revision of the Binet Scale, tests include copying a square at 5 years of age, a diamond at 7, and reproducing a simple geometric figure from memory at 10 (109).

Between the ages of 2½ and 5 years, most children show consistent improvement in their ability to copy simple geometric figures. They make many errors, however, not only in the form of their drawings but also in size, tending to underestimate or overestimate the size of the model. Copying improves with chronological and mental age, but *more* with mental. The reason for the closer relationship between the development of this skill and mental age is that form perception plays an important role in copying (41, 110).

Ball Throwing and Catching. The ability to throw and catch balls requires well-coordinated movements, not only of the arms and hands, but of the entire body. As Gesell has stated, "Skill in throwing a ball requires a fine sense of static and dynamic balance, accurate timing of delivery and release, good eye-hand coordination, and appropriate functioning of the fingers, as well as the arms, trunk, head, and legs, in controlling the trajectory of the ball" (37). Some babies roll and may even attempt to throw balls before they are 2 years old. Even at 4, however, few can throw well. By 6 years, most children are proficient, though there are marked variations in the skill at every age (6, 46).

Better to throw than catch.

Ball catching is likewise difficult. At 4 years, few children are proficient, while at 6, approximately two-thirds are. At first, the child uses his whole body to clasp the ball. Then, he uses his arms, with less random movement. Later, he perfects a coordinated movement of the hands to catch the ball between the palms.

Block Building. The child first carries blocks from place to place and manipulates them in irregular masses. By the age of 3, he places them in regular piles or rows to build simple structures or enclosures. Gradually, his constructions become more complex and are often used as part of dramatic play. The more difficult structures tend to be built obliquely, as at the edge of a table, while the more familiar structures are symmetrically centered.

LEG SKILLS

After the child reaches 18 months of age, motor development in the legs consists primarily of the perfection of walking and the acquisition of related skills. Before a child is 2 years old, for example, he can walk sideways and backward, he can stand on one foot with help, and, a year later, without help. At 3, he can walk on tiptoe and, between the fifth and sixth years, he can walk well enough to balance on a narrow plank elevated at one end or on a chalk mark on the floor.

A number of studies have been made of the patterns of development of specific leg skills and the ages at which most children can be expected to acquire them.

Running. At first, running is little more than fast walking, with uneven steps and a general clumsiness of the entire body that leads to many falls. By the age of 5 or 6 years, the child can not only run with relatively few falls but can play games at the same time. When the young child first starts to run, he does so, not because he wants to get to a given place quickly, but because he derives satisfaction from the activity itself. Later, when running is well developed, he reserves this activity for occasions requiring speed.

Jumping. Jumping is at first an exaggerated stepping with one foot and then the other; or the child may drop himself from the place of support, lifting both feet simultaneously and stepping with both at once. The body is not propelled forward, and, as a result, the child generally lands in a sprawl and has trouble getting up. This is the characteristic method of jumping of the 2-year-old.

By his fourth birthday, the child can jump from a height of about 12 inches and make a standing jump of 23 to 33 inches. He propels his body upward and forward, bends his knees, swings from higher to lower levels, and lands in a standing position. Jumping over obstacles is difficult for a 4-year-old, though the 5-year-old has little difficulty, provided the obstacles are not high. Between the fifth and sixth years, most children can jump rope.

Skipping and Hopping. Skipping and hopping are modifications of jumping. While children attempt to *hop* before they are 3 years old, they are not skillful until 6 or 7. Hopping on two feet precedes hopping on one. After learning to hop, the child adds variations—hopping backward or turning around while hopping.

Skipping is more difficult than hopping. Few children can skip well at the age of 6. During the first three years of school, they skip to music and do dances in which skipping plays a dominant role.

Climbing. Even before the baby can walk, he climbs steps by crawling and creeping. The pattern of stair climbing is almost identical to that of creeping. A child who creeps on hands and knees climbs stairs on hands and knees; the child who creeps on hands, knee, and one foot climbs stairs in that fashion. In going down steps, the baby generally goes backward.

Before a child is 2 years old, he can walk upstairs and downstairs with help, holding the railing of the stairs or the hand of a person. This he does in an upright position. At first, one foot is placed on the step, and the other is drawn up to it. The same foot is used each time to make the advance. A similar method is used for going downstairs. Gradually, with practice, the child lets go of the railing and uses his legs alternately, as in walking. This adult manner of step climbing is attained by 4 years of age, provided the child has had ample opportunity to learn. Figure 7–5 shows the characteristic stages in step climbing.

Swimming. Learning opportunities play a large part in determining how soon a child will acquire swimming skills. Few children swim much before the age of 4 years, and many not until several years later. Swimming is a highly coordinated skill, requiring more practice than many of the other skills of childhood.

Tricycling and Bicycling. By the age of 2 years, a few children can ride tricycles. Between 3 and 4, all who have an opportunity to learn can do so. After achieving a skilled performance, children use their tricycles for stunting, such as riding backward, turning corners, riding while standing up, and avoiding obstacles. By the time the child is 6, sometimes even before, he graduates to a bicycle. Children regard a bicycle as a status symbol—an insignia of growing up—and most, especially boys, have a strong motivation to learn to ride a bicycle as early as possible.

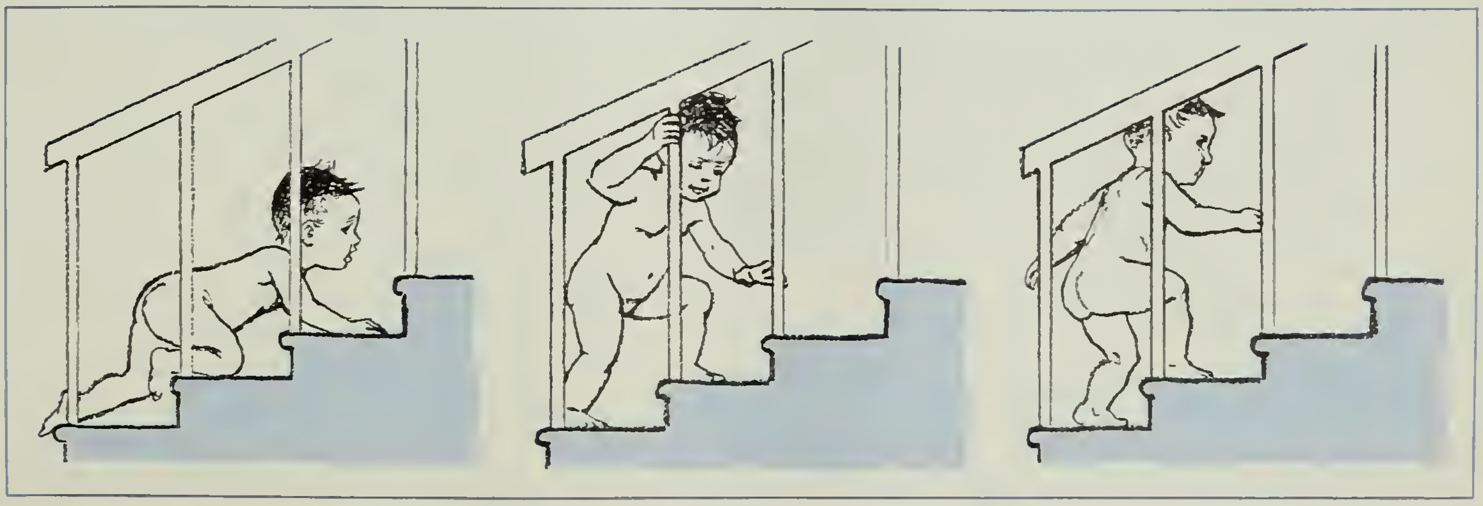
Handedness

For many of the practical performances of the child's life, motor development in the hands and arms is more important than motor development in the legs and feet. A majority of hand skills, however, require the use of only one hand or of one hand aided by the other. As a result, the child develops one *dominant* hand, and if an act requires help, the other hand—the *auxiliary* hand—is called into use. In writing, for example, the dominant hand holds the pencil or pen and does the writing. The auxiliary hand is needed only to hold the paper in place.

Handedness means the predominant use of one hand. The person's *preference* for one hand as compared with the other is the first criterion of whether he is right- or left-handed. The *proficiency* or skill with which he uses one hand as compared with the other is the second criterion (111).

A person is said to be right-handed if he uses the right hand as the dominant hand *most* of the time, and left-handed if he favors the left. Few people are so dominantly right- or left-handed that they *always* use the preferred hand. At all ages, shifts in hand usage are common, though they tend to decrease as the child approaches adolescence.

Figure 7–5. Stages in step climbing.



A person is *ambidextrous* if he uses both hands equally well and approximately an equal amount of the time. A child who is ambidextrous can feed himself or bat a ball equally well with either hand. Few people are ambidextrous when they reach adulthood.

Left-handed people tend to be more ambidextrous than right-handed people. Children who show a preference for the use of their left hands, for example, are often taught to perform certain formal skills, such as writing or painting, with their right hands. In time, they build up a repertoire of skills carried out by both their right and left hands. Those skills carried out by the right hand are done equally well as those by the left hand. By contrast, when a right-hander uses his left hand for a certain act, he generally is less skillful than he is when using his right hand.

ORIGIN OF HANDEDNESS

Traditionally (see Chap. 1), the child is born right- or left-handed, and any attempt to change the dominant hand will produce such ills as emotional tension, stuttering, and reading disorders.

One fact in support of the belief that handedness is hereditary is that the left side of the cerebrum is normally functionally superior to the right and thus determines right-hand preference. Only when the right side of the cerebrum is functionally superior is the person left-handed. It is also claimed by some proponents of the hereditary handedness argument that the right hand is structurally superior to the left, owing to the position of the fetus in the uterus. Still other proponents of this belief claim that handedness is related to the spontaneous preference of one side over the other in involuntary acts, such as focusing one eye. Evidence indicates, however, that the relationship between handedness and footedness is greater than that between handedness and eyedness. In fact, there is evidence that when dominance occurs, it is general and affects the entire side of the body—known as "sidedness" (37).

Whether handedness is hereditary or the result of training and social conditioning has been debated for many generations. Extensive research indicates, however, that training and social conditioning determine handedness and that, therefore, there is no such thing as "natural handedness."

DEVELOPMENT OF HANDEDNESS

In the early months of life, babies are ambidextrous, with no preference for either the right hand or the left. By the time they are 8 months old, most begin to show a slight preference for the right hand, though they shift from one hand to the other, depending largely on the position of the person or object they are reaching for. If the person or object is closer to their right, for example, they will use the right hand (3, 14, 85).

During the second year of life, shifting from right- to left-hand usage continues, but is not as frequent as during the first year. Then, between the ages of 2½ and 3½ years, there is a marked shift to bilaterality, with both hands being used with approximately equal frequency and proficiency. From the ages of 4 to 6 years, unilateral preference predominates and shifts from the use of one hand to the other are relatively infrequent (3, 7, 14). This means that when the child enters school, he is either right- or left-handed, seldom ambidextrous. There is evidence that, when motivated to do so, children, adolescents, and even adults can acquire new skills with either hand without experiencing any emotional upset (7, 44, 85).

Right-handedness is too important in our culture to be left to chance. Learning to use one hand in preference to the other is always easier if directed and if the learning occurs before any conflicting habit has been established. As Hildreth has commented, "Handedness should be trained, not left to chance, since manual dexterity can affect an individual's educational and vocational success" (51).

This does not mean that the child should be *forced* to use the right hand if he definitely prefers the left or can do things more easily with the left. Ames and Ilg have sounded a warning about forcing the use of the right hand. The wisest approach, they have pointed out, is merely to present objects to the right hand and thus encourage the child to use it (3).

PREVALENCE OF RIGHT-HANDEDNESS

In most societies, for reasons no one knows exactly, more people are right-handed than left-handed. Approximately 95 percent of Americans are right-handed. More males than females are left-handed (4, 35, 51). One cultural explanation for the prevalence of right-handedness is that, through the ages, people have associated the left side of the body with evil and left-handedness with dullards. The devil, for example, was popularly depicted as left-handed.

Owing primarily to the popular belief that handedness is hereditary and that any attempt to interfere with left-handedness will result in stuttering and other indications of nervous tension, more children are permitted to develop left-handed skills today than in the past. Furthermore, owing to the permissive methods of teaching writing in the elementary school, there are more left-handed boys and girls in the junior and senior high schools than previously (73, 101).

In many Oriental countries, left-handedness is far less common than in the United States. To Chinese parents, for example, left-handedness is a departure from convention, which is strictly frowned upon. If not corrected, it is likely to be interpreted as an indication of parental laxity. Traditionally, among the American Indians, left-handedness was deliberately discouraged by releasing only the right arm of the baby while he was bound to the cradleboard on the mother's back. With the disappearance of the cradleboard, the incidence of left-handedness among Indian babies has increased (82).

ADVANTAGES OF HAND DOMINANCE

Dominant handedness is advantageous. With the establishment of dominance come not only feelings of stability and security but also opportunities to develop levels of skill that would be impossible if attempts were made to use both hands with equal frequency. If a child learns to perform the majority of skills with one hand, the auxiliary hand is then trained to work with the dominant hand, and as a team the two can operate with great efficiency. Most children who lack hand dominance have less strength, speed, and accuracy in movement than those who are either right- or left-handed (17, 31, 51, 83).

ADVANTAGES OF RIGHT-HANDEDNESS

There is no reason to believe that the right hand is superior to the left or that a nation of right-handed people is superior to a nation of left-handers. It has become traditional, however, to regard the right hand as the preferred hand, and much in our culture has been built on this traditional preference. As Hildreth explains, "Right-handedness is a cultural and social convention to which most people are trained and find it expedient to conform. . . . In an unbiased world, left-handedness would be as common as right-handedness, for the play of chance factors would be equal for the two sides" (51). But this is not an unbiased world. Instead, as Dayhaw has emphasized, "Our modern world is dextral-minded" (28). Machines, tools, home appliances, sporting equipment, desk chairs, desk drawers, illumination—all are designed for right-handers. Only the typewriter, which has been called the "only left-handed machine in general use" because the most frequently used keys are on the left, is easier for the left-hander to master (83). Methods of teaching are also geared to the right-handed. Some of the many advantages of being right-handed are given in Box 7–4.

The advantages of being right-handed do not end with childhood. When a left-handed person applies for work that requires the manipulation of complicated machinery, for example, he often finds that even if he can adapt the training methods to his left-handed needs, he still cannot come up to the speed of right-handers. Many employers believe that left-handers are harder to train, are slower workers, and are safety hazards (51, 82).

Box 7–4

IMPORTANT ADVANTAGES OF RIGHT-HANDEDNESS

Learning Is Facilitated

Most equipment and systems of teaching skills favor the right-handed person. The left-hander has to try to adapt them to his needs.

Guidance and Demonstrations Are More Meaningful

Since most models are right-handed, the right-handed child finds demonstrations and explanations easier to follow than the left-hander.

Skills Are Speedier and Less Fatiguing

Since right-handers are favored in guidance and demonstrations, they usually develop superior skills and greater speed. Left-handers become fatigued from trying to keep up to the pace set by right-handers; they become frustrated because they are slower and have more difficulty achieving their levels of aspiration.

Conformity to Social Expectations Is Facilitated

Being right-handed in a right-handed world enables the child to conform to the pattern set by the majority; being left-handed makes him different and conspicuous. Right-handedness also facilitates the social graces, such as following the accepted pattern of using eating utensils.

Personality Is Favorably Affected

Conforming to the behavior of one's age-mates and to the expectations of the social group leads to favorable self-judgments. Many left-handed children feel inadequate and ashamed because they are different.

CHANGING LEFT-HANDEDNESS

The disadvantages left-handed people encounter in a right-handed world provide many left-handers a strong motivation to use the right hand. Many parents, realizing the problems their left-handed children will come up against, also want them to become right-handed. Many are held back by the old wives' tale of the damaging effects of attempting to shift.

If handedness is a learned skill, as the evidence strongly indicates, it would be easier for the child to be trained to use his right hand as soon as he is maturationally ready to do things with one hand. Only if he strongly prefers to use the left hand should this training be abandoned. The longer the shift to the right hand is put off, however, the more difficult it will be. Changes in accustomed patterns of behavior always require adjustments, and these always lead to nervous tension. If the child is *forced* to make the change instead of being encouraged to do so, he may become resistant, and this will increase his confusion and tension.

It is not true, however, that corrective measures, per se, will cause serious psychological difficulties, especially if they are undertaken before left-hand habits become strongly established. It is true that the tension aroused when there is interference with partially established habits *may* lead to stuttering and other forms of nervous behavior, such as nail biting and thumb sucking. These are more likely to be *symptoms* of the tension resulting from the child's attempts to break an old habit and establish a new one than of the change of handedness. Normally, the tension thus created will tend to subside when the change has been made. If the child's resistance is extreme and if there is too long a delay in making the change, the stuttering or other nervous mannerisms may become fixed habits that will persist throughout life (28, 51).

The extent and duration of psychological damage resulting from attempts to change the child from a left- to a right-hander will vary according to the personality makeup of the child. A high-strung, nervous child, for example, may suffer great and long lasting damage, while a child who is placid and easygoing may suffer none. Hildreth (51) has suggested the following conditions as favorable prognostic indications for changing handedness:

- The child is under six years of age.
- The child uses both hands interchangeably.
- The handedness index is bilateral.
- A trial period shows no permanent difficulty.
- The child is agreeable to the change.
- The child is above average in intelligence.

In conclusion, then, parents and teachers must make a choice between two alternatives: *first,* trying to change the child's handedness and running the risk of damaging his personality, and *second,* allowing the child to persist in the use of his left hand and running the risk of his feeling embarrassed and inferior because he is "different." While being left-handed in a right-handed world has disadvantages, they may be preferable to the damage that can result from trying to change habits that have become firmly established.

Awkwardness

A child should be regarded as awkward or clumsy only if his control over the movements of his body falls below the norm for his age. Some children may *seem* to be awkward because they are judged by inappropriate standards. For example, a child who is mentally precocious enough to be in a grade above that of his age-mates is very likely to be judged in terms of his *apparent age,* not his real age. Hilgard has called this the "size-age confusion" (52). A 2-year-old who is large for his age is likely to be judged awkward if standards of motor development for a 3-year-old are applied to him.

VARIATIONS IN AWKWARDNESS

Not all children progress through the various stages of motor development at the average ages. *Interindividual* differences in awkwardness cover a wide range. Some children show little or no awkwardness for their ages while others stumble over their own feet and drop everything they try to handle. At every age, however, more children tend to fall below the norm in motor coordination than above it. This is more true of boys than of girls.

There are also *intraindividual* differences in awkwardness—for a number of reasons. *First,* a child who is temporarily nervous, tense, and emotionally disturbed will be more awkward than he normally is. Emotional disturbances make the muscles tense and even rigid, and control becomes difficult. A normally well-coordinated child may become very clumsy and awkward when he is in a fit of temper.

Second, during periods of rapid growth, such as the puberty growth spurt, established patterns of muscular coordination are upset. Rapid maturers are more awkward at this time than slow maturers who have time to adjust to their newly enlarged hands and feet.

Third, children differ in the degree of motor control they have in different situations. As a result of differences in learning opportunities, in the time spent in acquiring skills, and in motivation, children are well coordinated in some activities and awkward in others. A child who has plenty of opportunity to practice ice skating but little opportunity to play ball or ride a bicycle, for example, will be a proficient skater but below the norm for his age in ball playing and bicycling.

CAUSES OF AWKWARDNESS

Awkwardness is not a natural characteristic of childhood, if one applies the appropriate age-level norms. Dare and Gordon have written, "Children are not by nature clumsy and, once the toddler stage is passed, the grace of movement of the average child is something to be admired. So the child whose movements are awkward and inco-ordinate presents an unhappy contrast" (27).

Many studies have tried to discover why children are awkward. They have concluded that some causes of awkwardness are controllable and others are not. They have also revealed that a child may be awkward for several reasons or for only one. Of the many causes of awkwardness, those discussed below are the most common.

Delay in Maturation. Skills cannot be perfected until the child achieves basic motor coordination; therefore delay in maturation of muscle control will automatically result in awkwardness. The child will not be able to perform as well as his age-mates. No matter how strong his motivation or how excellent his teaching, he will, in comparison, seem awkward and clumsy.

Poor Physical Condition. Popular opinion holds that there is a close relationship between physical condition and motor development. This would mean that children who were in the best physical condition would be more precocious in motor development. This hypothesis is not necessarily true, because it fails to consider other factors which contribute to motor development. There is evidence, however, that, all other factors equal, the child of superior health is more precocious in motor development than the child whose physical condition is poor (32, 74, 115). On the other hand, a child whose health is poor has little motivation to exercise and, as a consequence, does not get the practice needed to develop skills.

Body Build. To some degree, the body build determines the ease with which one can handle his body. The child with a stocky build, for example, is better adapted to activities requiring strength than those requiring speed.

At every age, excessive deviation from the norm in body build is a handicap to the performance of motor skills. Extremely thin or stocky children show less agility and tend to be less active than those who are more nearly average in build. Consequently, their motor skills are inferior to those of their age-mates, not because of body build, per se, but because their body build motivates them *not* to practice enough to acquire skills.

Intelligence. The relationship between intelligence and motor development, especially during the first years of life, is so marked that motor items figure largely in tests of general intelligence for children under 2 years of age. Babies who are extremely slow in sitting, standing, or walking generally prove, as time goes on, to be backward in intellectual development (72, 91). Those who are precocious in motor development prove to be, for the most part, intellectually precocious. The age of walking, in particular, has been found to be associated with intelligence (4, 5).

Among older children and adolescents, there is practically no relationship between *normal* intelligence and motor performance (42). If a child is mentally *deficient,* however, he is likely to be below the norm for his age in motor development; the more deficient he is mentally, the more awkward and clumsy he will be (27, 39, 56, 72). Many very *bright* children are also inept at games and sports, dancing, and manual skills, such as painting, drawing, sewing, or clay modeling. It is not that they *cannot* develop skills, as is true of mentally deficient children, but that they *do not want* to. Having little interest in activities in which skills play a major role, they have little motivation to practice, and, as a result, they fail to develop these skills.

Lack of Opportunity to Develop Muscle Control. Motor development may be delayed because of lack of opportunity for practice. A study of institutional children in Iran revealed that the children were retarded in sitting, creeping, and walking. Analysis of the possible causes showed that, as babies, the children were kept in very small cribs. They were not propped up in sitting positions or placed in varied prone positions. Clearly, their retardation in motor development stemmed from lack of opportunity to learn. This explanation was substantiated by the fact that by the time the children were 4 years old, they had caught up to the norm (30).

Many young children are deprived of opportunities to develop motor skills by overprotective parents who are so afraid that they will hurt themselves that they forbid the children to do what many of their age-mates are permitted to do. Overanxious parents who constantly warn their children to be careful instill a timidity in the children which makes them afraid to practice new skills.

As they grow older, many children are limited in their opportunities to learn by their environment, by lack of materials and play equipment, or by lack of someone to teach them. A child's environment may also encourage play activities which do not require skilled motor performance. When this happens, the motivation to learn skills is weakened. Consequently, the child will not be interested in taking advantage of opportunities which may come to him later, and so he will continue to lag behind his contemporaries.

Lack of Incentive to Develop Muscle Control. Even if the environment is conducive to the development of motor skills, the young child may be slow in achieving muscle control because of lack of incentive to do so. If he is pampered and waited on, and if his every wish is satisfied, he becomes lazy. In walking, dressing, and self-feeding, this is especially obvious.

Comparisons of young children from homes of high and low economic status have revealed that while those from the more favored environments ranked higher in verbal, practical, and emotional abilities, they were inferior in skills involved in self-care, such as washing the face and hands and combing the hair. The difference in development of self-care skills was due largely to the greater motivation children from the poorer environments had to do things themselves; they had no one to do them for them. This is likewise true of children from large families as compared with those from small families (12, 27).

Many school-age children develop "antiwork" attitudes; they scorn anything that suggests "manual labor." To them, being "helpless" and awkward is a status symbol. It shows that they are above work. They may be encouraged in this attitude by group pressures and group approval. Evidence of the role such pressures play, as Landreth (70) has explained, is

> *. . . found in the rewarding and indulging of sedentary behavior by television programs and automobile rides. To many children, physical inactivity is made to appear the ultimate juvenile virtue. Gadget manipulation of fine-muscle push-button type is also rewarded by a variety of ingenious toys. Many young Americans are thus given considerable encouragement toward the life of sedentary on-lookers controlling mechanical activity by the push of a button or the twist of a wrist.*

Emphasis on "Perfection." Some adults—parents and occasionally teachers—expect a child's motor skills to approach the level of adult skills. They push the child into a learning situation before he is ready, and they expect him to learn specific movements before the gross movements have been perfected. For example, in writing or dancing, the child is expected to coordinate the smaller muscle teams before coordinating the larger ones. Since this is too complicated for him, he becomes discouraged and rebellious. Later, when he is physically and neurologically ready, he resists learning. As a result, he lags behind other children of his age and soon begins to think of himself as inferior.

Emotional Tension. Any strong emotion, whether it is fear, anger, jealousy, or hatred, is accompanied by bodily preparation for action. This preparation consists, among other things, of tensing the muscles so that they are alert and ready for instantaneous response. Under such conditions, even the well-coordinated individual has less control over his muscles than he has during periods of emotional calm, and he will appear to be clumsy and bumbling.

Children who tend to be nervous and high-strung inevitably have less control over their movements than those who are more relaxed. Given equal abilities, equal motivation to learn, equal opportunities for practice under guidance, and equal practice time, those who are emotionally calm are likely to be superior in skills of all types to those who are emotionally disturbed. The more disturbed emotionally the child is, the less well coordinated he will be. The far-reaching effect of tension caused by fear has been emphasized by Breckenridge and Vincent (13):

> *Ridicule, sarcasm, scolding, or laughing at a child's clumsiness in the early learning stages, or at the inevitable slips which cause dropping of objects, stumbling,*

or falling, may cause an emotional blocking which can result in tense movement and awkwardness throughout the child's life.

PSYCHOLOGICAL DAMAGE OF AWKWARDNESS

Studies of motor coordination in childhood have shown that the psychological damage of awkwardness is, in many respects, even greater than the physical. In Box 7-5 are listed the major sources of this psychological damage.

There is further evidence that the damage often leaves a scar on the child's personality—a scar that may never be completely eradicated even though the awkwardness itself is overcome. Many cases of inferiority complex in adolescence and adulthood have been traced to awkwardness during the childhood years.

The awkward child's lack of self-confidence is apparent in everything he undertakes, his manner of speech, his gait, and his attack on a new problem. As a result, his adjustment to life—not only in childhood, but also later—is adversely affected. Studies of awkward children have revealed that they often become almost apologetic in their posture and gait, in the way they shake hands, and even in the manner in which they enter a room. This kind of behavior is a direct reflection of lack of self-confidence and feelings of inadequacy (27, 61).

From a constructive angle, persons responsible for child training should recognize that as soon as awkwardness becomes apparent, remedial steps should be taken to overcome it. Furthermore, since awkwardness is usually manifested at an early age, it is easier to correct then than later. It should not be overlooked or neglected in the hope that it will be outgrown.

Box 7-5

SOURCES OF PSYCHOLOGICAL DAMAGE FROM AWKWARDNESS

Feelings of Inferiority

When a child begins to associate with other children, he compares his activities and achievements with theirs. If his performance falls short, he feels inferior. If he comes to think of himself as inferior in *all* areas, the foundation for an inferiority complex is laid.

Jealousy of Other Children

Jealousy develops when the awkward child envies children who perform better than he, especially when they are commended by adults and he is criticized. Jealousy makes the child unhappy; it also makes other children reject him as a playmate.

Resentment toward Adults

A child rarely blames himself for his awkwardness. He generally finds a scapegoat to blame, usually a parent or teacher. This lays the foundation for a martyr complex. Feeling guiltless, the child is not motivated to overcome his awkwardness.

Social Rejection

Awkwardness is a handicap in the child's social contacts with members of the peer group. If other children laugh at his clumsiness and do not want to play with the child, his feelings of inadequacy and resentment are intensified.

Dependency

The child who lacks self-confidence because of awkwardness does not try to do his best. He becomes dependent on others, and this increases his feelings of inadequacy.

Timidity

Normally, physical timidity decreases as childhood progresses. Awkward children do not follow this pattern. Instead, they often do not engage in motor activities because they are afraid they will not perform successfully. Physical timidity may become so generalized that they are afraid of *any* new situation. As a result, they work far below their capacities and often fail when they should succeed.

Boredom

Awkward children who are cut off from the activities of their age-mates become bored and restless. Instead of expending their energies in wholesome play, they often engage in troublesome activities, in retaliation for their rejection by the peer group or in the hope of winning the group's attention and approval. This pattern of social adjustment may become habitual.

Most important of all, children do not want to be awkward; they realize the handicaps awkwardness brings and have a strong motivation to learn to coordinate their movements. To achieve this goal, they need guidance and supervision until the causes of their awkwardness have been removed and until they have achieved good control.

Highlights of Chapter 7

1. Motor development is important to a child. It promotes good health, is a source of emotional catharsis, helps the child to achieve independence and entertain himself, contributes to socialization, and has a marked effect on the self-concept.

2. Studies of motor development have revealed that it depends on maturation and learning, that learning skills cannot occur until the child is maturationally ready, that there is a predictable pattern in motor development with predictable stages in this pattern, and that there are individual differences in the rate of motor development.

3. In the pattern of motor development, there are predictable ages at which normal children can control different parts of the body.

4. Motor control follows the laws of developmental direction, with control proceeding from head to foot and from body axis to extremities.

5. There are two major categories of motor skills: gross motor skills, which develop first, and finer motor skills, which develop more slowly.

6. Skills are learned by three methods: trial-and-error, imitation, and training. Of these, the first is the least effective and the last the most effective.

7. The four essentials in skill development are opportunity to learn, practice, guidance, and motivation.

8. The common hand skills of childhood include self-feeding, self-dressing, self-grooming, writing, copying, ball throwing and catching, and block building. The common leg skills include running, jumping, skipping, hopping, climbing, swimming, tricycling, and bicycling.

9. Handedness, which is determined by two criteria, preference and proficiency, is largely a product of learning.

10. Hand dominance is advantageous because it provides the child with feelings of stability and security and leads to a higher level of skill than is possible if both hands are used with equal frequency.

11. The important advantages of right-handedness are: it facilitates learning, increases speed and decreases fatigue, and conforms to social expectations, which leads to favorable self-judgments.

12. Awkwardness should be judged only by norms for the child's age, not by norms for his size or his grade placement.

13. Awkwardness is not a natural characteristic of children but is due to a variety of conditions, including delay in maturation, poor physical condition, deviant body build, deviant intelligence, lack of opportunity and motivation to develop motor control, emphasis on perfection, and emotional tension.

14. The psychological damage of awkwardness comes from the child's feeling of inferiority, his jealousy of other children and resentment toward adults, social rejection, dependency, timidity, and boredom.

Bibliography

1. Ainsworth, M. D.: Patterns of attachment behavior shown by the infant in interaction with his mother. *Merrill-Palmer Quart.*, 1964, 10, 51–58.
2. Ames, L. B., and F. L. Ilg: Developmental trends in writing behavior. *J. genet. Psychol.*, 1951, 79, 29–46.
3. Ames, L. B., and F. L. Ilg: The developmental point of view with special reference to the principle of reciprocal neuromotor interweaving. *J. genet. Psychol.*, 1964, 105, 195–209.
4. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children*. 3d ed. Philadelphia: Saunders, 1966.
5. Bayley, N.: Comparisons of mental and motor test scores for ages 1–15 months by sex, birth order, race, geographical location and education of parents. *Child Develpm.*, 1965, 36, 379–411.
6. Bayley, N.: *Bayley's scales of infant development*. New York: Psychological Corporation, 1968.
7. Belmont, L., and H. G. Birch: Lateral dominance and right-left awareness in normal children. *Child Develpm.*, 1963, 34, 257–270.
8. Benjamin, L. S.: The beginning of thumb sucking. *Child Develpm.*, 1967, 38, 1065–1078.
9. Biddulph, L. G.: Athletic achievement and the personal and

social adjustment of high school boys. Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr., 1954, 25, 1–7.

10. [illegible], P. A. G., R. Dee, and F. A. Ernst: Motor and psycho- [illegible] scores in epileptic children treated with [illegible] [illegible]. Amer. J. Psychiat., 1958, 114, 1107–1112.

11. Blank, M.: A focal periods hypothesis in sensorimotor development. Child Develpm., 1964, 35, 817–829.

12. Bossard, J. H. S., and E. S. Boll: The sociology of child development. 4th ed. New York: Harper & Row, 1966.

13. Breckenridge, M. E., and E. L. Vincent: Child development. 5th ed. New York: Harper & Row, 1965.

14. Brown, J. L.: Differential hand usage in three-year-old children. J. genet. Psychol., 1962, 100, 167–175.

15. Bruch, H.: Developmental obesity and schizophrenia. Psychiatry, 1958, 21, 65–70.

16. Bull, K. R.: An investigation into the relationship between physique, motor capacity, and certain temperamental traits. Brit. J. educ. Psychol., 1958, 28, 149–154.

17. Burge, I. C.: Some aspects of handedness in primary school children. Brit. J. educ. Psychol., 1952, 22, 45–51.

18. Burnside, L. H.: Coordination in the locomotion of infants. Genet. Psychol. Monogr., 1927, no. 2.

19. Caldwell, B. M., and L. Hersher: Mother-infant interaction during the first year of life. Merrill-Palmer Quart., 1964, 10, 119–128.

20. Chevrette, J. M.: The effect of peer observation on selected tests of physical performance. J. Psychol., 1968, 70, 113–119.

21. Church, J., and L. J. Stone: The early school years. Children, 1960, 7, 113–114.

22. Cohen, A. I.: Hand preference and developmental status of infants. J. genet. Psychol., 1966, 108, 337–345.

23. Connolly, K., K. Brown, and E. Bassett: Developmental changes in some components of a motor skill. Brit. J. Psychol., 1968, 59, 305–314.

24. Cronbach, L. J.: Educational psychology. 2d ed. New York: Harcourt, Brace & World, 1962.

25. Cruickshank, W. M., and G. O. Johnson: Education of exceptional children and youth. 2d ed. Englewood Cliffs, N.J.: Prentice-Hall, 1967.

26. Dales, R. J.: Motor and language development of twins during the first three years. J. genet. Psychol., 1969, 114, 263–271.

27. Dare, M. T., and N. Gordon: Clumsy children: a disorder of perception and motor organization. Develpm. Med. Child Neurol., 1970, 12, 178–185.

28. [illegible], L. T.: Building readiness in the development of the child. Education, 1953, 74, 195–198.

29. Dennis, W.: Handwriting conventions as determinants of human figure drawing. J. consult. Psychol., 1958, 22, 293–295.

30. Dennis, W.: Causes of retardation among institutional children: Iran. J. genet. Psychol., 1960, 96, 47–59.

31. Dusenberry, L.: A study of the effects of training in ball throwing by children ages three to seven. Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr., 1952, 23, 9–14.

32. Elliott, R.: Physiological activity and performance: a comparison of kindergarten children with young adults. Psychol. Monogr., 1964, 78, no. 10.

33. Francis, R. J., and G. L. Rarick: Motor characteristics of the mentally retarded. Amer. J. ment. Def., 1959, 63, 792–811.

34. Frandsen, A. N.: Educational psychology. 2d ed. New York: McGraw-Hill, 1967.

35. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. Genet. Psychol. Monogr., 1968, 77, 169–299.

36. Geber, M.: The psycho-motor development of African children in the first year, and the influence of maternal behavior. J. soc. Psychol., 1958, 47, 185–195.

37. Gesell, A.: The ontogenesis of infant behavior. In L. Carmichael (ed.): Manual of child psychology. 2d ed. New York: Wiley, 1954. pp. 335–373.

38. Gesell, A., F. L. Ilg, and L. B. Ames: Youth: the years from ten to sixteen. New York: Harper & Row, 1956.

39. Govatos, L. A.: Relationships and age differences in growth measures and motor skills. Child Develpm., 1959, 30, 333–340.

40. Govatos, L. A.: Motor skill learning. Rev. educ. Res., 1967, 37, 583–598.

41. Graham, F. K., P. A. Berman, and C. B. Ernhart: Development in preschool children of the ability to copy forms. Child Develpm., 1960, 31, 339–359.

42. Green, C., and E. Zigler: Social deprivation and the performance of retarded and normal children on a satiation type task. Child Develpm., 1962, 33, 499–508.

43. Groden, G.: Mental ability, reaction time, perceptual motor, and motor abilities in handicapped children. Percept. mot. Skills, 1969, 28, 27–30.

44. Groden, G.: Lateral preferences in normal children. Percept. mot. Skills, 1969, 28, 213–214.

45. Guilford, J. P.: A system of psychomotor abilities. Amer. J. Psychol., 1958, 71, 164–174.

46. Gutteridge, M. V.: A study of motor achievements of young children. Arch. Psychol., N.Y., 1939, no. 244.

47. Halverson, H. M.: An experimental study of prehension in infants by means of systematic cinema records. Genet. Psychol. Monogr., 1931, 10, 107–286.

48. Hartley, R. E., L. K. Frank, and R. M. Goldenson: Understanding children's play. New York: Columbia, 1952.

49. Havighurst, R. J.: Human development and education. New York: Longmans, 1953.

50. Havighurst, R. J.: The social competence of middle-aged people. Genet. Psychol. Monogr., 1957, 56, 297–375.

51. Hildreth, G.: The development and training of hand dominance. J. genet. Psychol., 1949, 75, 197–275; 76, 39–144.

52. Hilgard, E. R.: Introduction to psychology. 4th ed. New York: Harcourt, Brace & World, 1967.

53. Hindley, C. B.: Racial and sexual differences in age of walking: a reanalysis of the Smith et al. (1930) data. J. genet. Psychol., 1967, 111, 161–167.

54. Hindley, C. B., A. M. Filliozat, G. Klackenberg, D. Nicolet-Meister, and E. A. Sand: Differences in age of walking in five European longitudinal samples. Hum. Biol., 1966, 38, 364–379.

55. Hollingworth, L. S.: Children above 180 IQ: origin and develop-

ment. New York: Harcourt, Brace & World, 1960.

56. Howe, C. E.: A comparison of motor skills of mentally retarded and normal children. *Except. Children*, 1959, **25**, 352–354.
57. Humphrey, M. E.: Consistency of hand usage. *Brit. J. educ. Psychol.*, 1951, **21**, 214–225.
58. Hunt, L. A.: A developmental study of factors related to children's clothing preferences. *Monogr. Soc. Res. Child Develpm.*, 1959, **24**, no. 3.
59. Hutt, M. L., and R. G. Gibby: *The child: Development and adjustment.* Boston: Allyn & Bacon, 1959.
60. Ismail, A. H., and C. C. Cowell: Factor analysis of motor aptitude in preadolescent boys. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1961, **32**, 507–513.
61. Jersild, A. T.: *Child Psychology.* 6th ed. Englewood Cliffs, N.J.: Prentice-Hall, 1969.
62. Johnston, M. K., C. S. Kelley, F. R. Harris, and M. M. Wolf: An application of reinforcement principles to development of motor skills of a young child. *Child Develpm.*, 1966, **37**, 379–387.
63. Jones, H. E.: *Motor performance and growth.* Berkeley: University of California Press, 1949.
64. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.*, 1965, **36**, 899–911.
65. Keogh, B. K., and J. F. Keogh: Pattern copying and pattern walking performance of normal educationally subnormal boys. *Amer. J. ment. Defic.*, 1967, **71**, 1009–1013.
66. Key, C. B., M. R. White, M. P. Honzik, A. B. Heiney, and D. Erwin: The process of learning to dress among nursery-school children. *Genet. Psychol. Monogr.*, 1936, **18**, 67–163.
67. Klatskin, E. H., E. B. Jackson, and L. C. Wilkin: The influence of degree of flexibility in maternal child care practices in early child behavior. *Amer. J. Orthopsychiat.*, 1956, **27**, 79–93.
68. Koch, H. L.: The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. *Monogr. Soc. Res. Child Develpm.*, 1960, **25**, no. 4.
69. Kohen-Raz, R.: Mental and motor development of kibbutz, institutionalized, and home-reared infants in Israel. *Child Develpm.*, 1968, **39**, 489–504.
70. Landreth, C.: *Early childhood: Behavior and learning*, rev. ed. New York: Knopf, 1967.
71. Macfarlane, J., L. Allen, and M. P. Honzik: *A developmental study of the behavior problems of normal children between twenty-one months and fourteen years.* Berkeley: University of California Press, 1954.
72. Malpass, L. F.: Motor proficiency in institutionalized and noninstitutionalized retarded and normal children. *Amer. J. ment. Defic.*, 1960, **64**, 1012–1015.
73. Martin, K. L.: Handedness: A review of the literature on the history, development and research of lateral preference. *J. educ. Res.*, 1952, **45**, 527–532.
74. Martin, P. C., and E. L. Vincent: *Human development.* New York: Ronald, 1960.
75. McGraw, M. B.: *Growth: A study of Johnny and Jimmy.* New York: Appleton-Century-Crofts, 1935.
76. McGraw, M. B.: Neuromuscular development of the human infant as exemplified in the achievement of erect locomotion. *J. Pediat.*, 1940, **17**, 744–771.
77. McGraw, M. B., and K. W. Breeze: Quantitative studies in the development of erect locomotion. *Child Develpm.*, 1941, **12**, 267–303.
78. Morrison, I. E., and I. F. Perry: Acceptance of overage children by their classmates. *Elem. sch. J.*, 1956, **56**, 217–220.
79. Mueller, S. R.: Development of urinary control in children. *J. Amer. med. Ass.*, 1960, **172**, 1256–1261.
80. Munn, N. L.: *The evolution and growth of human behavior.* 2d ed. Boston: Houghton Mifflin, 1965.
81. Murphy, L. B.: Spontaneous ways of learning in young children. *Children*, 1967, **14**, 210–216.
82. *New York Times* Report: Left-handed find handicap grows. *The New York Times*, Aug. 2, 1959.
83. *New York Times* Report: Left-handers buck right-handed life. *The New York Times*, Dec. 29, 1968.
84. Norval, M. A.: Relationship of weight and length of infants at birth to age at which they begin to walk. *J. Pediat.*, 1947, **30**, 676–679.
85. Palmer, R. D.: Development of a differentiated handedness. *Psychol. Bull.*, 1964, **62**, 257–272.
86. Parker, E.: *The seven ages of woman.* Baltimore: Johns Hopkins, 1960.
87. Pikler, E.: Some contributions to the study of the gross motor development of children. *J. genet. Psychol.*, 1968, **113**, 27–39.
88. Pressey, S. L., and R. G. Kuhlen: *Psychological development through the life span.* New York: Harper & Row, 1957.
89. Ragsdale, C. E.: How children learn the motor types of behavior. *49th Yearb. Nat. Soc. Stud. Educ.*, 1950, part 1, pp. 69–91.
90. Rheingold, H. L., W. C. Stanley, and J. A. Cooley: Method for studying exploratory behavior in infants. *Science*, 1962, **136**, 1054–1055.
91. Richmond, J. B.: Observations of infant development: Clinical and psychological aspects. *Merrill-Palmer Quart.*, 1964, **10**, 95–101.
92. Ryan, M. S.: *Clothing: A study in human behavior.* New York: Holt, 1966.
93. Schaltenbrand, C.: The development of human motility and motor disturbances. *Arch. Neurol. Psychiat.*, 1928, **20**, 720–730.
94. Scott, J. P.: The process of primary socialization in canine and human infants. *Monogr. Soc. Res. Child Develpm.*, 1963, **28**, no. 1.
95. Scrutton, D. S., and P. Robson: The gait of 50 normal children. *Physiotherapy*, 1968, **54**, 363–368.
96. Sears, P. S., and H. Levin: Levels of aspiration in preschool children. *Child Develpm.*, 1957, **28**, 317–326.
97. Seils, L. G.: The relationship between measures of physical growth and gross motor performance of primary-grade school children. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1951, **22**, 244–260.
98. Shapiro, H.: The development of walking in a child. *J. genet. Psychol.*, 1962, **100**, 221–226.
99. Shaw, M. C.: Motivation in human learning. *Rev. educ. Res.*, 1967, **37**, 563–582.
100. Shirley, M. M.: *The first two*

years of life. Minneapolis: University of Minnesota Press, vol. 1, 1931; vol. 2, 1933.

101. Smith, A. C., and G. F. Reed: An experimental investigation of the relative speeds of left- and right-handed writers. *J. genet. Psychol.,* 1959, **94,** 67–76.

102. Solomons, G., and H. S. Solomons: Factors affecting motor performance in four-month-old infants. *Child Develpm.,* 1964, **35,** 1283–1296.

103. Sontag, L. W.: Implications of fetal behavior and environment for adult personalities. *Ann. N. Y. Acad. Sci.,* 1966, **134,** 782–786.

104. Spitz, R. A.: Purposive grasping. *Personality,* 1951, **1,** 141–148.

105. Spock, B.: *Baby and child care,* rev. ed. New York: Pocket Books, 1970.

106. Stein, Z., and M. Susser: Social factors in the development of sphincter control. *Develpm. Med. Child Neurol.,* 1967, **9,** 692–706.

107. Stone, L. J., and J. Church: *Childhood and adolescence,* 2d ed. New York: Random House, 1968.

108. Strang, R. M.: *An introduction to child study,* 4th ed. New York: Macmillan, 1959.

109. Terman, L. M., and M. A. Merrill: *Stanford-Binet Intelligence Scale,* 3d rev. Boston: Houghton Mifflin, 1960.

110. Townsend, E. A.: A study of copying ability in children. *Genet. Psychol. Monogr.,* 1951, **43,** 3–51.

111. Trieschmann, R. B.: Undifferentiated handedness and perceptual development of children with reading problems. *Percept. mot. Skills,* 1968, **27,** 1123–1134.

112. Turkewitz, G., T. Moreau, L. Davis, and H. G. Birch: Factors affecting lateral differentiation in the human newborn. *J. exp. Child Psychol.,* 1969, **8,** 483–493.

113. Tyler, L. E.: The development of "vocational interests." 1. The organization of likes and dislikes in ten-year-old children. *J. genet. Psychol.,* 1955, **86,** 33–34.

114. Ulrich, C., and R. K. Burke: Effect of motivational stress upon physical performance. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.,* 1957, **28,** 403–412.

115. Vincent, E. L., and P. C. Martin: *Human psychological development.* New York: Ronald, 1961.

116. Wagoner, L. C., and E. M. Armstrong: The motor control of children as involved in the dressing process. *J. genet. Psychol.,* 1928, **35,** 84–97.

117. Wahler, R. G.: Infant social development: Some experimental analyses of an infant-mother interaction during the first year of life. *J. exp. Child Psychol.,* 1969, **7,** 101–113.

118. Wapner, S., and L. Cirillo: Imitation of a model's hand movements: Age changes in transposition of left-right relations. *Child Develpm.,* 1968, **39,** 887–894.

119. Werner, E. E., and N. Bayley: The reliability of Bayley's revised Scale of Mental and Motor Development during the first year of life. *Child Develpm.,* 1966, **37,** 39–50.

120. Whipple, H. D.: Effects of elementary-school physical education upon aspects of physical, motor, and personality development. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.,* 1961, **32,** 249–260.

121. White, S. H.: The learning-maturation controversy: Hall to Hull. *Merrill-Palmer Quart.,* 1968, **14,** 187–196.

122. Wickelgren, L. W.: The ocular response of human newborns to intermitten visual movement. *J. exp. Child Psychol.,* 1969, **8,** 469–482.

123. Wise, J. H.: Stick copying by preschool and young school-age children. *Percept. mot. Skills,* 1968, **27,** 1159–1168.

124. Witryol, S. L., and J. E. Calkins: Marginal social values of rural school children. *J. genet. Psychol.,* 1958, **92,** 81–93.

WILLIAM SIMMONS—FORD FOUNDATION

CHAPTER EIGHT Speech Development

MUCH OF THE HELPLESSNESS of the newborn infant stems from his inability to communicate. He is unable to express his needs and wants in forms that others can understand, and he is unable to comprehend the words, gestures, or written symbols of others. This helplessness is rapidly reduced in the early years of life as the child gains control over the muscles needed for the various communication mechanisms.

The early years are also critical for future communicative ability; it is then that the foundations for later development are laid. While early deficiencies can to some extent be compensated for later, they are likely to leave a permanent mark on the individual's pattern of communicating.

Speech versus Language

Language encompasses every means of communication in which thoughts and feelings are symbolized so as to convey meaning to others. It includes such widely differing forms of communication as writing, speaking, sign language, facial expression, gesture, pantomime, and art. It is one of the main things that differentiates human beings from the lower animals.

Speech is a form of language in which articulate sounds or words are used to convey meaning. Speech development is, as Lynip has explained, a "sound-shaping development, a growth process proceeding from the vague, indistinct and fortuitously shaped to the clear, distinct, and controlled" (74).

Not all sounds made by a child are speech. Before he has gained enough control over the neuromuscular mechanism to produce clear, distinct, and controlled sounds, his vocal utterances are merely inarticulate sounds. Only when two criteria are met can the utterances be called speech.

First, the child must know the meaning of the words he uses and must associate them with the objects they represent. Even when the baby says recognizable words, such as "da-da" or "ball," he is not necessarily using real speech. "Da-da" must refer to one person only, his father, not to all men; "ball" must refer to balls only, not to toys in general.

Second, the child must pronounce his words so that they are readily understandable by others in the society. Words that are comprehensible only to those who, because of constant contact with the child, have learned to understand him or to guess at what he is trying to say do not meet this criterion. Baby talk may satisfy the first criterion of speech, since words are identified with specific objects, but it does not satisfy the second.

It is often difficult to know when real speech begins. Many utterances satisfy only one of the two criteria. A child may, for example, pronounce the word "milk" perfectly, but he may use it to refer to anything he drinks. Or he may associate "mil" only with milk. In neither case can the utterance be considered real speech, although the child is to some extent communicating. It is thus apparent that communication competence is not the same as linguistic competence (63).

Undoubtedly, the marked variations reported in size of vocabulary of preschool children are due in part to the failure to apply *both criteria* of speech. When parents list the words their children use, they apply only the criterion of correct pronunciation. They assume that, if the child says the word, he automatically knows what it means.

Importance of Speech

How important is speech? Cope has written: "Language is indispensable to human life as we know it. Oral language behavior, or speech, is man's major activity throughout his lifetime and is part of almost everything he does" (29).

Of the many areas of life in which speech is essential, the following will be discussed in detail: social relationships, social evaluation, self-evaluation, and academic achievement.

SOCIAL RELATIONSHIPS

The ability to communicate with members of the social group is crucial to group belonging and to interpersonal relationships. As Ellis has said, speech is the primary medium through which persons affect their society and are affected by their society (40).

That speech is important to social adjustment is clearly seen in a child who is cut off from others by deafness. The child is socially isolated. Even though his playmates recognize his disability, they fail to take it into consideration when they talk to one another. They do not mean to leave him out, but he feels that he does not belong to the group. He cannot hear what they are saying, and he hesitates to speak to them for fear of saying the wrong thing and having them laugh at him.

Children who are able to communicate well make better social adjustments than those who lack the ability or fail to use it for fear of making mistakes. Studies of popularity show that, at all ages, children who express themselves in words as well as in actions are more popular, other factors equal, than those who are quiet and reserved (35, 77).

Similarly, the child who wishes to become a leader must be able to influence the actions of others through speech. If a child has acquired the ability to put his thoughts and feelings into words and is not held back by fear of how others will react, he is in line for a leadership role. The quiet, introverted child is likely to be overlooked, even though he may have other qualities that are superior to those of the extroverted child who makes himself the center of group attention by expressing himself frankly, freely, and with confidence.

SOCIAL EVALUATIONS

The child, like the adolescent or the adult, is evaluated by members of the social group in terms of what he says and how he says it. His social class, his educational background, his sex appropriateness, and many other personal characteristics are signaled to others by his speech. To cite Ellis again, auditory cues often provide more information about a person than do visual cues (40).

In judging a child's personality, members of the social group base their evaluation on the fluency of his speech. If he is hesitant, sprinkling phrases with "ehs" or "ahs," they consider him lacking in self-assurance and grace. If, on the other hand, his speech is smooth and decisive, they regard him as poised (28, 68). Members of the group also use speech as a measure of what a child thinks of himself as a person and of his relationships with others. Penny (92) has written:

> *In our everyday communication relationships we constantly make inferences, perhaps not always consciously, about the communicator's motivation from both what he says and how he says it. We observe the fact that he repeatedly returns to particular topics, that he selects some aspects of a topic and disregards others, that he uses a particular tone of voice or style of speech, and so on. From such data we may infer that he has a "one track mind," that he is biased, that he is being sincere or insincere. Probably most inferences of this kind are made automatically, on the basis of very limited data together with rather broad assumptions about human nature.*

SELF-EVALUATION

The child evaluates himself in terms of how he believes the significant people in his life judge him. Therefore, his speech plays an important role in determining what his self-concept will be. Penny has said, "In a sense, the communicative act is an experiment in which the communicator gets more or less immediate feedback concerning others' evaluation of him and his communication procedures. Such feedback must constitute an important aspect of the socialization process" (92).

The child can tell immediately—from the facial expressions and comments of his listeners—how they feel about what he has said and whether they have been favorably impressed by it.

ACADEMIC ACHIEVEMENT

Academic success is influenced greatly by the child's ability to communicate in speech and in writing. The child whose speech performance is below that of his classmates, regardless of the reason, is often judged by the class, and usually by teachers as well, to be intellectually inferior. A speech defect or an accent may mean that he will receive grades below his intellectual capacities. This, combined with unfavorable peer and teacher judgments, will make the child dislike school and will stifle his motivation to overcome the deficiency.

The importance of vocabulary size has been explained by Garrison (47):

> *The number of words a child knows determines in large measure his school progress, and failure to progress normally has far-reaching significance. Words are the means by which the child learns about his world. If his knowledge of words is grossly inadequate, the interpretation of his environment will be correspondingly so.*

Size of vocabulary also influences the child's ability to express himself in writing and to understand what he hears and reads—both of which are essential to school success.

Prespeech Forms of Communication

Learning to speak is a long and complicated process. Until the child is maturationally ready to learn, nature provides certain stopgap forms of communication for him. If this were not so, the period of helplessness would be greatly prolonged. Most children do not say even their first words until they are 12 to 15 months old. Their communication must be in forms preliminary to speech. They will continue to use these prespeech forms of communication until they have mastered sufficient linguistic skill to use meaningful words that can be understood both by the child and by others.

During their first few months, babies use three prespeech forms of communication: *crying;* explosive sounds, which soon develop into *babbling;* and *gestures.* Of the three, the second is the most important in speech development because it becomes the basis for real speech. As is true of all stopgap measures, prespeech forms of communication should be abandoned when their usefulness ends.

CRYING

In the early days of life, most vocalization consists of crying. During the first 2 weeks, crying occurs at irregular intervals. Often, for no apparent reason, the infant begins to cry intensely, perhaps even in his sleep. Beginning with the third week, there is normally less crying, and by the third or fourth month, night waking and crying decrease. No tears are shed in crying until the baby is about 1 month old.

Causes of Crying. Among babies less than 7 weeks of age, hunger is the most common cause of crying; noise and light are the least likely causes. Unknown causes are next in frequency to hunger. Colic is a common cause of crying during the first 3 months. Older babies cry because of pain, bright lights, sharp noises, uncomfortable positions, strong disturbances during sleep, fatigue, hunger, inability to move due to restrictive clothes or covers, loss or removal of a plaything, fear, and withdrawal of contact with others. Crying is most frequent before feeding and before the baby goes to sleep for the night (1, 67).

Before the baby is 3 months old, he has learned that crying is a sure way to get attention. He then learns to use it as a means to an end. At 4 months, a baby will cry when an adult ceases to play with him; at 5 months, he will cry if an adult enters the room but pays no attention to him; and at 9 months, he will cry if an adult approaches another child. In the latter part of the first year, crying is also a reaction to unusual handling and an expression of fear of strange situations.

A comparison of crying in the home and in the nursery school revealed that at home young children cry mostly because of conflicts with adults or with siblings; they cry at mealtime or when they are injured. In the nursery school, the most common causes of crying were attacks on the child's person, attacks on his property, frustrations by another child, and accidental injury (67). (See Fig. 8–1.)

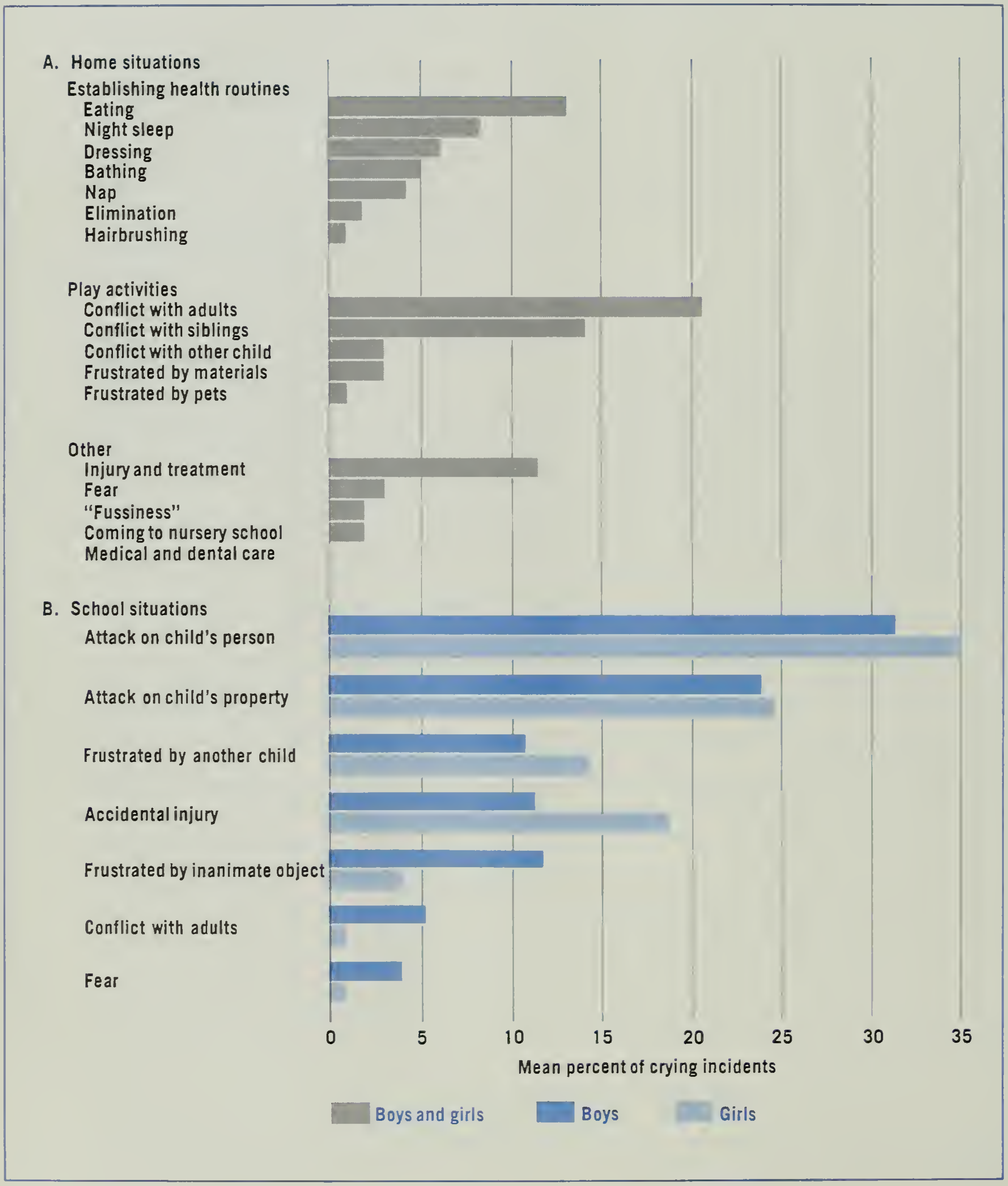
Variations in Crying. Individual variations in the *amount of crying* are greater than variations in the tonal qualities of cries. Some babies and children cry very little, while others cry excessively—or more than normal for their age and level of development (59, 65, 67, 74). The amount of crying varies according to how promptly and how adequately their needs and wants are met. A small baby communicates his simple wants by noncrying methods, such as smacking the lips or ejecting the tongue when hungry, squirming and trembling when cold, or sneezing when wet. If these signals are understood, the baby will then cry only in pain and genuine distress. Some babies continue to cry excessively after the first 2 weeks of life. Most likely, the mothers of these babies wait a long time before heeding their cries, are inconsistent about responding to them, or are insecure, anxious, tense, and unable to gain satisfaction from contacts with their babies (65).

Crying in young babies is accompanied by reddening or mottling of the skin, clenching of the fists, alternate extension and flexion of the extremities, irregular breathing, prolonged expiration, and increased pulse rate. The entire body is active, and fatigue sets in if the crying continues. As the baby grows older, activity during crying decreases. The crying of the 2- or 3-year-old is accompanied by no more activity than any other emotional outburst.

Social Reactions to Crying. How children and adults react to a child's crying will depend partly upon the age of the child and partly upon their own beliefs regarding the function of crying. It is commonly believed that the young baby's only means of communication is crying. Parents, therefore, *expect* the baby to cry. This expectation, in turn, affects the baby's behavior; he learns that he must cry to get his wants and needs attended to. He is *conditioned* to cry, because his other modes of expression have failed to bring him what he wants. The baby thus learns to cry instead of learning to use noncrying modes of communication.

People react to the crying of a young child who has learned to talk and to that of a baby quite differently. Instead of coming to the young child's rescue, parents often regard his crying as a sign that he is spoiled.

Figure 8–1. Causes of crying in young children at home and in nursery school. (Adapted from C. Landreth: The psychology of early childhood. *Knopf, 1958. Used by permission.)*



They may scold or punish him. Later, the child discovers that other children look upon his crying as babyish. Among older children, crying is so scorned that the child who cries is likely to become a social isolate. This will be discussed further in the chapter on social adjustments.

In a study of crying at home and in the nursery school, it was found that adults responded very differently to crying in these two situations. In the nursery school, they consoled the child, censured the child who caused the crying, suggested arbitration in property disputes, and distracted the crying child. At home, adults ignored the child, tried to reason with him, spanked him, or removed him from the social group (67).

Physical and Psychological Effects of Crying. Will crying harm a child physically or psychologically? It depends largely upon whether the amount of his crying is normal for his age and level of development. If he cries no more than normal, crying will have no damaging effects and may even be beneficial.

Normal crying provides a baby with the exercise needed for muscle growth and coordination. It may also stimulate the appetite and encourage sound sleep. In a young child, normal crying is often a good outlet for emotional tension. When thwarted in what he wants to do, the child becomes angry and this leads to tension and nervousness. A good cry releases this pent-up energy and restores the homeostasis of his body. It also releases antagonisms against the person who has thwarted him and, in so doing, helps to establish a pleasanter relationship with that person.

Excessive crying is physically and psychologically damaging at any age. The longer the crying lasts and the more intense it is, the more harmful its effects. Some of the physical and psychological damages of excessive crying are shown in Box 8-1.

Excessive and prolonged crying should not be allowed to become a habit. Once formed, such a habit will not be outgrown, nor will it disappear of its own accord. Instead, it will have to be un-learned and replaced by forms of communication that are more mature and socially acceptable. The sooner this is done, the easier it will be for the child and the less damage he will suffer.

Decrease in Crying. In normal, healthy babies, crying gradually decreases during the first half of the first year of life if the baby's needs and wants are met with reasonable speed. Figure 8-2 shows the pattern of decrease.

Even when a baby can say a few words, his need for crying as a form of communication has not come to an end. Not until he has an adequate vocabulary to express his needs, wants, thoughts, and feelings has he reached the point where crying is no longer necessary. When he will reach this point depends upon his learning opportunities, his ability, and his motivation. The young child who has learned that crying is a tried and trusted method of coping with his wants and needs will not readily give it up without assurance that a substitute method will work equally effectively.

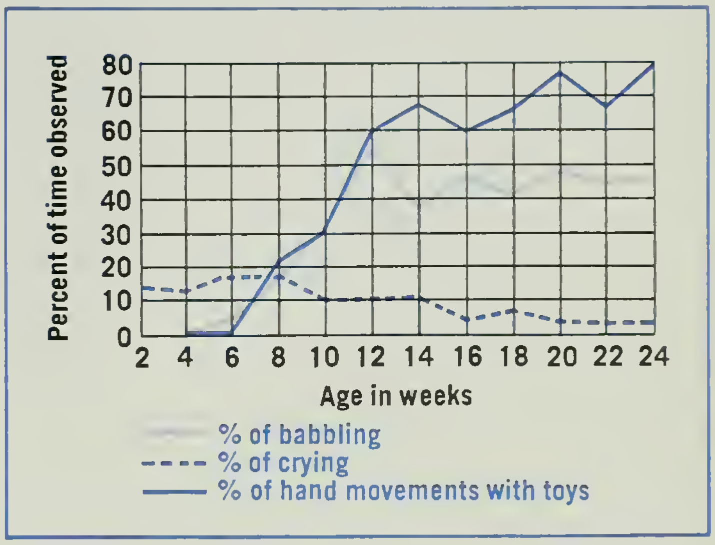
For every child, the *curve for crying should go down as the curve for speech rises.* If the speech curve rises slowly, the crying curve will have to descend slowly.

After the child has an adequate vocabulary, he still will not automatically and immediately give up crying. He will do so more quickly, however, if he is *taught* how to get what he wants by speaking. With guidance and encouragement, a child should be almost ready to abandon crying by the time he reaches kindergarten age (96).

COOING AND BABBLING

In addition to cries, a baby makes many simple sounds during the first months of life. There are grunts of

Figure 8-2. Changes in babbling, crying and use of hands during the early weeks of babyhood. (Adapted from J. Dittrichová and V. Lápačková, Development of the waking state in the young child. Child Develpm., *1964,* **35**, *365-370. Used by permission.)*



pain or disgust, squeals of delight, yawns, sneezes, sighs, belching, coughing, guttural barking sounds, growls, and cries that sound like the whine of a young pig or the bleat of a goat. These are known as cooing. As the baby's neuromuscular mechanisms develop, explosive sounds change into babbling.

Cooing. Early explosive sounds are caused by chance movements of the vocal mechanism. The sounds themselves depend largely on the shape of the oral cavity and the way it modifies the stream of air expelled from the lungs and passing over the vocal cords (5). They are unlearned and are universally found, even among the deaf. Because they have no significance for the baby and are not used as a form of communication, they may be regarded as a *playful activity* which gives the baby enjoyment. Many of these early cooing sounds will disappear, but some will develop into babbling and, still later, into words.

Babbling. Gradually, the number of sounds the baby can produce increases. There is, as well, an increasing definiteness of utterance of various sounds. At first, vowels are combined with consonants, for example, "da," "ma," "ugh," or "na." Later, with practice, vocal control makes it possible for the baby to repeat these sounds by stringing them together, as in "ma-ma-ma-ma" or "ugh-ugh-ugh." This is real babbling, or "lalling."

Owing to the baby's growing ability to control the flow of air over the vocal cords, he can pronounce sounds at will. Babbling is, therefore, a form of vocal gymnastics, voluntarily produced, but with no real meaning or association for the baby.

Some babies begin to babble as early as the second month of life. After that, there is a rapid increase, with a peak between the sixth and eighth months. Then babbling gradually gives way to the use of words (10, 78). The pattern of babbling is shown in Figure

Box 8-1

PHYSICAL AND PSYCHOLOGICAL DAMAGES OF EXCESSIVE CRYING

Physical Damage

- *Depletion of energy.* Because babies literally "cry all over," excessive crying depletes their energy and exhausts them. This interferes with normal eating and sleeping and, in turn, with normal physical growth. If crying continues until the baby or child becomes somewhat hysterical, he cannot stop crying even when the cause of the crying has been removed. This further depletes his energy.
- *Upsets in body homeostasis.* Excessive crying, when prolonged, upsets the normal functioning of the entire body. This results in variability in gastrointestinal functions, regurgitations, vomiting, night waking, enuresis, and general nervous tension which is expressed in such mannerisms as thumb-sucking and nail-biting. When crying leads to a hysterical state, the upset in homeostasis is not only intensified but is also prolonged.

Psychological Damage

- *Parental attitudes.* When a baby cries more than parents consider normal, they worry and become overconcerned or they ignore his cries, hoping to teach him that he cannot get what he wants by being ornery. The child is psychologically damaged in either case—by parental overprotectiveness or by the build-up of feelings of insecurity and helplessness, which he will later interpret as parental rejection.
- *Home climate.* Excessive crying annoys all members of the family and puts a strain on everyone. As a result, the home climate becomes frictional. Since the child is largely responsible, his relationships with different family members deteriorate, and he comes to feel that he is unloved and unwanted.
- *Social reactions.* Unless adults and age-mates outside the home can see a real reason for the child to cry, they will be impatient and intolerant, regarding him as a crybaby. This leads to social rejection, which is psychologically damaging. It deprives the child of opportunities to learn social skills and provides the basis for unfavorable self-evaluation.

8-2. How soon the baby will begin to favor the use of words will depend largely upon the development of his vocal mechanism and his incentive to use it for speaking. Some babies continue to babble into the second year.

Babbling is a form of "play speech," in that sounds are, as McCarthy has pointed out, "uttered for the mere delight of uttering them" (78). It occurs mostly in periods of contentment, more frequently when the baby is alone than when he is with others who can amuse him. That the baby enjoys listening to his own voice is shown by the way he smiles and laughs at the sounds he is making and by the fact that deaf babies, who begin to babble at the usual age, soon lose interest in it. Further evidence of the playful element of babbling is found in the fact that babies vocalize more when adults talk to them than when adults are silent. It is a part of the total response they give to the adult —a form of social reaction rather than an attempt at communication (78). An equally important line of evidence that babbling is a form of play rather than a form of communication is revealed by the fact that babies of deaf parents babble as much as babies of parents who can hear and respond to them (69).

Value of Babbling. Babbling has no immediate value other than the enjoyment it gives to the baby. It has great long-term value, however. It is *verbal practice that lays the foundation for developing the skilled movements required in speech.* True, without babbling the baby would, eventually, learn to speak. But babbling hastens the learning process by providing the basic skills needed to control the vocal mechanism for the more highly complicated skills of speech. Babbling should, therefore, be encouraged, because it leads to earlier and better speech (5, 97, 119, 121).

With practice in babbling, the baby increases the number and variety of sound combinations that he can produce. In addition, he acquires variations in pitch and inflection; his babbling takes on a conversational tone. In a social situation, he may try to babble his way into the conversation. In this way, he is laying social as well as speech foundations. The baby who babbles while others speak actually *feels* that he belongs to the group. He is not an outsider. Thus, he is spared the feeling of social isolation that an inability to communicate always brings.

GESTURES

The third preliminary form of communication consists of gestures—movements of the limbs or the body which serve as *substitutes* for, or *supplements* to, speech. As a substitute for speech, gestures take the place of words; an idea is conveyed to others by meaningful movements of the limbs or some part of the body. As a supplement to speech, gestures emphasize the meaning of spoken words. Unlike babbling, which is fundamentally a form of play, gestures have the serious purpose of communication, just as crying has.

Most gestures made by babies are easy to understand. They, therefore, serve as a satisfactory substitute for speech until the baby can communicate in words. Some commonly observed gestures of babyhood are identified in Box 8-2.

The need for gestures as a substitute for speech does not end when the baby says his first words. The child has to build up a large vocabulary, and until he does so, he will use gestures to make his incomplete sentences meaningful. The early sentences of a young child are, therefore, a combination of words and gestures. As speech improves, the need for gestures decreases. Before the child enters school, his vocabulary should be large enough to enable him to make himself understood without the aid of gestures.

Evaluation of gestures. Gestures are a valuable form of communication for the baby. Without them many of his physical and social needs would remain unsatisfied. After he has learned to talk, the young child finds that gestures are readily understood by his agemates as well as by adults and that he can often communicate better with gestures than with words alone. This is especially true of boys who, as a general rule, are slower in learning to talk than girls (78, 83).

Gestures can become habitual methods of communication through reinforcement if they are permitted to persist after they are no longer needed. Many parents, unfortunately, believe that a child will outgrow gestures and they do little to encourage him to abandon them. Intelligent children, who learn to speak at an early age, need gestures for a shorter time than the average child. Children from the upper socioeconomic groups, where gestures are regarded as socially inappropriate, are encouraged to give them up as soon as possible, and consequently, they do not develop a strongly rooted habit.

Even where parents do nothing to break the gesture-using habit, children often discover, as they go out into the neighborhood, that gestures are "bad form"; they then try to break the habit themselves. In a neighborhood where gestures are not disapproved, however, the child has little motivation to abandon them.

How Children Learn to Speak

Speech is a skill and, like all skills, it must be learned. Speech consists of, first, the ability to produce certain sounds in combinations that are recognizable as words—the *motor* aspect of speech—and, second, the ability to associate meanings with these words—the *mental* aspect of speech. The muscle coordinations needed to produce sound combinations that are recognizable as words are certainly as complicated as the most intricate motor skills and require as much time and practice to learn. Furthermore, the necessity of associating meanings with words and of learning grammatical forms adds to the complexity of the speech skills.

ESSENTIALS IN LEARNING TO SPEAK

The four essentials in learning motor skills are also involved in learning to speak. They are readiness to learn, opportunities for practice, motivation, and guidance. If any one of these essentials is missing, learning will be delayed, and the quality of speech will fall below the child's potential and below the level of his age-mates.

Readiness to Speak. Speech development depends upon the maturation of both the *speech mechanism* and the *brain*—especially the association areas of the brain. At birth, the oral cavity is small, with a short anterior to posterior measurement. The palate is flat and lacks the arch characteristically found in older persons. The tongue is too large, filling much of the oral cavity and even protruding a good deal of the time. The nerves and muscles of the vocal apparatus are fairly well developed, but their use must wait upon the growth and maturation of the other parts of the speech mechanism.

Mental readiness to speak comes somewhat later than motor readiness. That is why, during the prespeech stage, the baby can babble sounds that approximate words and can even say isolated words in parrot fashion. Association of meanings depends upon memory and reasoning. Until the brain is well enough developed to permit a young child to remember past experiences and to relate past and present experiences with a specific word, he will be unready to learn to speak.

Opportunities for Practice. For most babies, a period of speech readiness occurs between the ages of 12

Box 8-2

SOME COMMON GESTURES OF BABYHOOD

Gesture	*Meaning*
Allows food to run out of mouth	Satisfied or not hungry
Pouts	Displeased
Pushes nipple from mouth with tongue	Satisfied or not hungry
Pushes object away	Does not want it
Reaches out for object	Wants to have it handed to him
Reaches out to person	Wants to be picked up
Smacks lips or ejects tongue	Hungry
Smiles and holds out arms	Wants to be picked up
Sneezes excessively	Wet and cold
Squirms and trembles	Cold
Squirms, wiggles, and cries during dressing or bathing	Resents restriction on activities
Turns head from nipple	Satisfied or not hungry

and 18 months. This period may be regarded as the "teachable moment" in speech development. On the whole, most babies and young children are given plenty of opportunities to practice talking. Parents recognize the importance of speech and regard early speaking as a sign of high intelligence. They derive considerable satisfaction from having their children learn to talk early and are usually willing to spend time and effort in helping them to do so.

If the baby is deprived of opportunities to make use of this period of readiness to speak, he is likely to become emotionally disturbed. The young child is deeply frustrated if he cannot make others understand what he is trying to tell them or if he is unable to express his feelings. Obstacles to learning may exist either in the environment or within the child himself —as in the case of deafness, which deprives the child of an opportunity to hear others speak and, consequently, of a model to imitate.

Motivation. Some parents do not provide adequate motivation even though they may provide ample learning opportunities. If the young child discovers that he can get what he wants without asking for it, and if substitutes for speech, such as crying and gestures, serve his purpose, his incentive to learn to speak is weakened. Baby talk, for example, is likely to continue until the child starts to play with other children. When he learns that they do not understand him, he will be motivated to improve his speech.

Studies of multiple births have revealed that twins and triplets are generally delayed in speech development because they associate mainly with one another and learn to understand their own jargons, thus eliminating the motivation to speak so they can be understood by others (31, 78). Figure 8-3 shows how twins lag behind the norm for their ages in speech development as compared with singletons. Note that by the time they are 3 years old, they approach the norm.

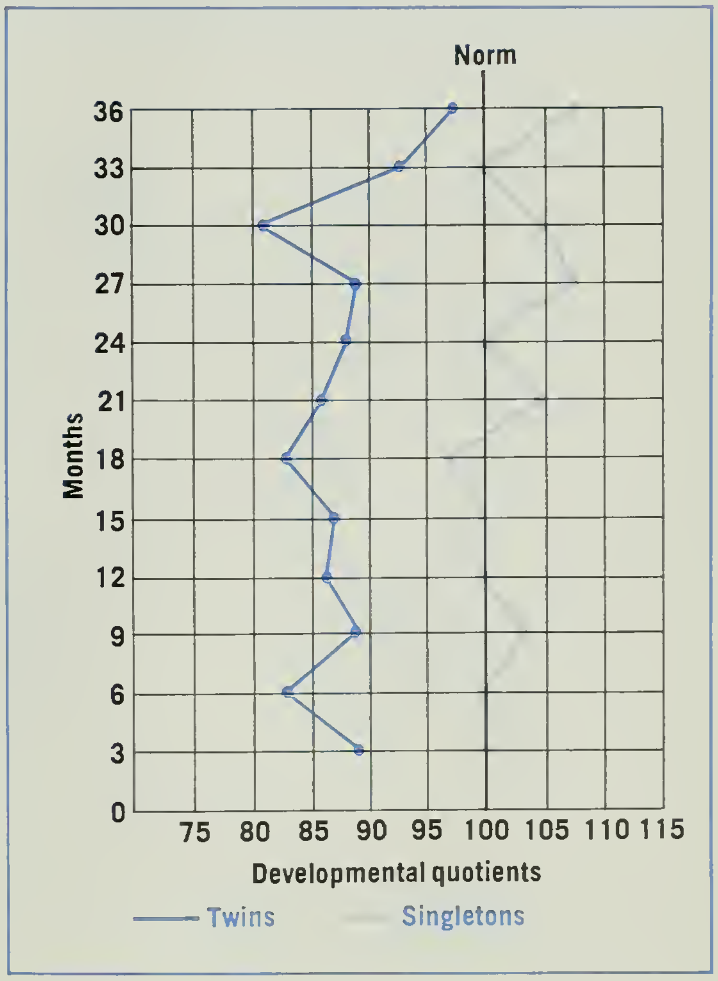
Guidance. Guidance in learning to speak is just as important as guidance in learning motor skills. Unfortunately, many parents do not know how to guide a child's speech development. Some are just lazy. Others believe that the child will outgrow his deficiencies, that he will automatically realize his mistakes when he hears other people speak correctly, or that his teachers will set him right when he enters school.

The best ways to guide speech development are: *First,* provide a good model, and *second,* provide help in following the model correctly. To be a good model for a child, a speaker must say each word slowly enough to be heard clearly and distinctly. He must give the child time to grasp the correct pronunciation and to understand the relationship of each word in a sentence to every other word. Since much imitation is unconscious, and since the child can learn good speech as easily as he can learn bad, it is obvious that the better the model, the better the child's speech. This is illustrated in Figure 8-4. As Bluemel has remarked, "Most children catch their speech in much the same way as they catch measles—by being exposed to it" (15).

Major Tasks in Speech Development

Just being able to speak in words and sentences that others can understand does not lead to communica-

Figure 8-3. Comparison of the speech development of twins and singletons during the early years of life. (Adapted from R. J. Dales, Motor and language development of twins during the first three years, J. genet. Psychol., *1969,* **114**, *263-271. Used by permission.)*



tion. Real communication involves also the ability to understand what others say. Learning to speak, therefore, entails four major developmental tasks. The tasks are so interrelated that successful achievement of one is essential to success in the others. To highlight their importance, these four tasks are listed in Box 8–3 and discussed individually in the following pages.

COMPREHENSION

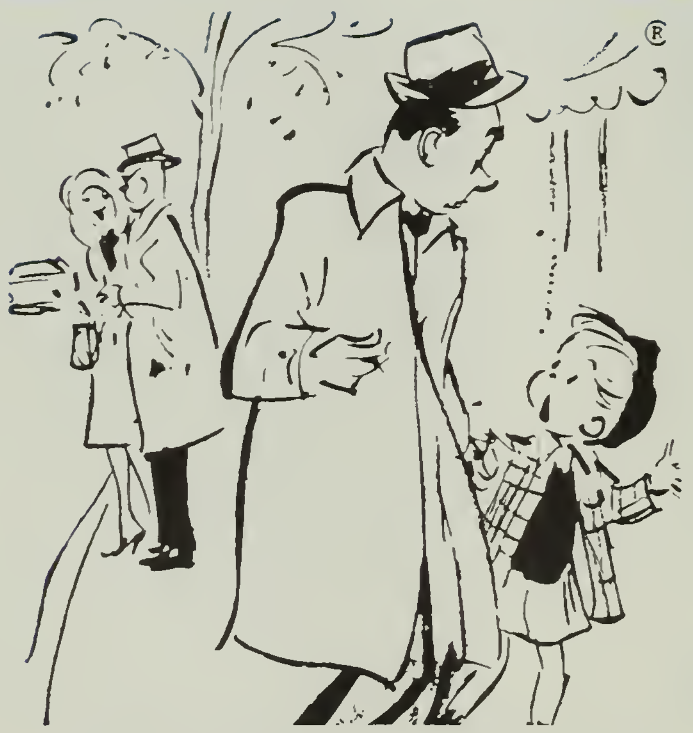
In many respects, learning to understand the meaning of what others say is the easiest of the four major tasks in speech development. At every age, the passive or "comprehension," vocabulary is larger than the active, or "speech," vocabulary. This is most apparent when a person learns a foreign language; he understands words spoken by others and can follow a conversation before he himself can speak intelligibly in that language.

A baby can comprehend the general meaning of what others say long before he can speak. This comprehension comes not from understanding the actual words, but rather from understanding other people's actions, voice intonations, and gestures. For example, a baby becomes quiet when he is talked to, he distinguishes between friendly and angry voices, and he responds to the affective intonations of the voice. Until the child is about 18 months old, the speaker must reinforce his words with gestures if he wants to be sure that the child will comprehend *exact* meanings. Even simple directions, such as "Put the cup on the table," need to be supplemented by a gesture of pointing to the table and to the cup.

Comprehension is more difficult in some areas of speech than in others. Differences in tense, such as "has jumped" versus "will jump," are only vaguely understood up to the age of 6 years (23, 53). "More" is more easily understood then "less" (34). And commands are understood earlier than statements of fact. This is partly because commands are usually accompanied by gestures, such as the lifting of the hand when one says, "No-No," and partly because commands are given in a decisive tone of the voice.

Listening to the radio and watching television aid comprehension because they encourage attentive listening (78). Also, the more the child is encouraged to participate in conversations, the more attentive he will be to what others say and, as a result, the better his comprehension (77, 90).

Figure 8–4. Because children learn correct speech from imitation of good models, it is essential that parents speak correctly. (Adapted from George Clark: "The Neighbors." The Philadelphia Evening Bulletin, *May 6, 1967, Chicago Tribune–New York News Syndicate. Used by permission.)*



"Dad, you're always correcting my grammar. But when we met them, you said 'Hi, folks—long time no see!' "

PRONUNCIATION

During the first 6 months of life, a baby will make many meaningless sounds in his cooing and babbling. In the presence of other people he will sometimes imitate them by "talking back," but *he does not imitate the sounds they are making.* That is too complicated for him. He is merely imitating *sound making in general.* This is called the "echo-reaction stage" of imitation. Readiness to imitate occurs at about the age of 12 months. At that time, the baby attempts to imitate specific sounds which had not previously appeared in his babbling (78).

Attempts to imitate occur more and more frequently, and the number of words attempted increases rapidly. Correctness of imitation, however, proceeds slowly. Many of the young child's imitations bear little resemblance to the original model. With practice comes improvement, and in time the child learns to pronounce new words quickly and easily. He uses this ability for the rest of his life in learning both foreign languages and new words in his own language.

Children literally "pick up" the pronunciation of words from the people with whom they associate. A young child's entire pattern of pronunciation will change rapidly if he is placed in a new environment where people pronounce words differently. Because of the child's flexibility in sound imitation—due to the plasticity of the vocal mechanism and the absence of well-developed habits of pronunciation—many parents and educators contend that early childhood is the proper time to begin learning a foreign language. If the child learns the correct pronunciation then, they maintain, he will "speak like a native," but if he waits until junior or senior high school before learning, he will always speak the foreign language with an American accent.

Variations in Pronunciation. Children differ markedly in the correctness of their pronunciation and in their accents. Variations in *correctness* of pronunciation depend partly upon the rate of development of the vocal mechanism but mostly upon the guidance the young child receives in combining sounds into meaningful words. This is a difficult skill. Correct pronunciation frequently lags behind the accumulation of a rather large vocabulary. Most young children know the meanings of many words that they cannot pronounce.

Variations in *accent* result from imitating models whose pronunciation differs from that in general use, as in the case of the bilingual child who imitates the accent of a foreign-born parent. When a child's accent differs from that of his peers, he feels conspicuous, different, and therefore inferior. Older children associate certain stereotypes with different accents. The child is then judged by his peers in terms of the stereotypes. If the stereotype is unfavorable, it is likely to lead to prejudice and social discrimination. The role played by accents in prejudice will be discussed later in relation to its effect on social development.

VOCABULARY

In building a vocabulary, the child must learn to associate meanings with sounds. Since many words have more than one meaning, vocabulary building is far more difficult than pronunciation. Furthermore, there is greater chance for error in the learning of correct sound-meaning associations. Such learning follows the technique of the *conditioned reflex*. From the many sounds the baby uses, people around him select certain ones to repeat, and these he eventually learns to associate with certain objects, people, and situations.

All meanings are first learned in connection with a specific object, person, or situation. But young children do not make very clear distinctions. They emphasize isolated aspects of a word. For example, when a young child learns to call his father "daddy," he is likely to call all men "daddy." Only gradually does he learn to apply general meanings to general categories and specific meanings to specific objects or situations.

The child first learns the meaning of those words for which he has the greatest need, but until his vocabulary is adequate to his needs, he also uses substitutes, such as crying and gesturing. As he grows older and abandons prespeech forms, he frequently uses slang terms as substitutes.

Children learn two kinds of vocabularies: a general vocabulary and multiple special vocabularies. The *general* vocabulary consists of such words as "man," "nice," and "go," which can be used in a variety of different situations. The *special* vocabularies, on the other hand, consist of words with specific meanings that can be used only in certain situations. Since words in the general vocabulary are the ones that are used most, they are learned first. At every age, the general vocabulary is larger than the special vocabularies. Box 8–4 spells out the major characteristics of general and special vocabularies.

Size of Vocabulary. The way in which the child adds to his knowledge of words is predictable. The child increases his vocabulary not only by learning new words but also by learning *new meanings for old words*. For example, he at first uses the word "orange" to refer to the fruit. Later, he discovers that it also refers to a color and, still later, that it is a complex color, made up of a combination of red and yellow.

Box 8–3

MAJOR TASKS IN LEARNING TO SPEAK

- Comprehending the meaning of what others say
- Pronouncing words so that they can be understood by others
- Building a vocabulary adequate to express one's thoughts, feelings, and wishes
- Combining words into meaningful sentences

It has been estimated that the mean number of different words used at 18 months is 10, and at 24 months, 29.1. In these early months, girls surpass boys in size of vocabulary. The average vocabulary of a 2-year-old contains 272 words and, again, girls surpass boys (72, 78, 118). Figure 8–5 shows the increase in vocabulary size during the preschool years.

After the child enters school, his vocabulary grows rapidly, owing to direct teaching, new experiences, leisure reading, and radio and television listening. It is estimated that the average first-grader knows between 20,000 and 24,000 words, or 5 to 6 percent of the words in a standard dictionary. The sixth-grader knows approximately 50,000 words, and the child entering high school, about 80,000 words, or 22 percent of the words in a standard dictionary (42, 78, 118, 126).

Individual differences in vocabulary size at every age are due to differences in intelligence, environmental influences, learning opportunities, and motiva-

Box 8–4

CHILDHOOD VOCABULARIES

General Vocabulary

- *Nouns.* The first words used by the child are nouns, generally monosyllables, taken from favorite babbling sounds.
- *Verbs.* After the child has learned enough nouns to apply names to the people and objects in his environment, he begins to learn verbs, especially those which designate action, such as "give," "take," or "hold."
- *Adjectives.* Adjectives appear in a baby's vocabulary from the age of 1½ years. The adjectives most commonly used at first are "good," "bad," "nice," "naughty," "hot," and "cold." These are applied principally to people, food, and toys.
- *Adverbs.* Adverbs are used at about the same age as adjectives. The earliest adverbs to appear in the child's vocabulary are generally "here" and "where."
- *Prepositions and pronouns.* These appear last because they are the most difficult to use. The young child becomes confused about when to use "I," "me," "my," and "mine," for example, and avoids their use as long as possible, substituting his own name or "baby" for the pronoun.

Special Vocabularies

- *Color vocabulary.* Most children know the names of the primary colors by the age of 4. How soon they will learn other color names depends on their interest in colors and on opportunities to learn.
- *Number vocabulary.* In the Stanford-Binet Intelligence Scale, the 5-year-old is expected to count three objects; the 6-year-old is expected to understand the words "three," "nine," "five," "ten," and "seven" well enough to count out that number of blocks.
- *Time vocabulary.* By the age of 6 or 7, the child usually knows the meaning of morning, afternoon, night, summer, and winter.
- *Money vocabulary.* The 4- or 5-year-old is beginning to label coins according to size and color.
- *Slang vocabulary.* Between 4 and 8, most children, especially boys, "go tough," using slang to express emotions and to conform to the peer group.
- *Swearing vocabulary.* Swearing is used mainly by boys, starting at the school age, to identify themselves with the big boys, to compensate for feelings of inferiority, and to assert their masculinity.
- *Secret language.* This is used mostly by girls after 6 years of age to communicate with their friends. It may be *verbal* (known as "pidgin English" because it is a distortion of English), *written* (symbols), or *kinetic* (gestures). See Figure 8–6 for illustration of secret language.

tion to learn. Girls, it has been reported, have larger vocabularies than boys at every age (78, 118).

SENTENCE FORMATION

At first, the child uses one-word sentences—a noun or verb that, combined with a gesture, expresses a complete thought. Saying "give" and pointing to a toy means "give me the toy." Or saying "ball" and holding out the arms in the direction of the ball means "give me the ball." The child uses single-word sentences from approximately 12 to 18 months of age.

The 2-year-old combines words into short, often incomplete, sentences containing one or more nouns, a verb, and occasionally an adjective or adverb. He simply omits prepositions, pronouns, and conjunctions. Typical sentences are "Hold doll," "Go bed," "Go bye-bye," and "Want drink." By the time the child is 4, his sentences are nearly complete; a year later, they are complete in that all parts of speech are used.

An analysis of the sentences of children under the age of 8 reveals an early decline in the use of incomplete as well as structurally complete but functionally incomplete sentences. There is a slight but steady increase in the use of simple sentences, compound and complex sentences, and elaborated sentences (76).

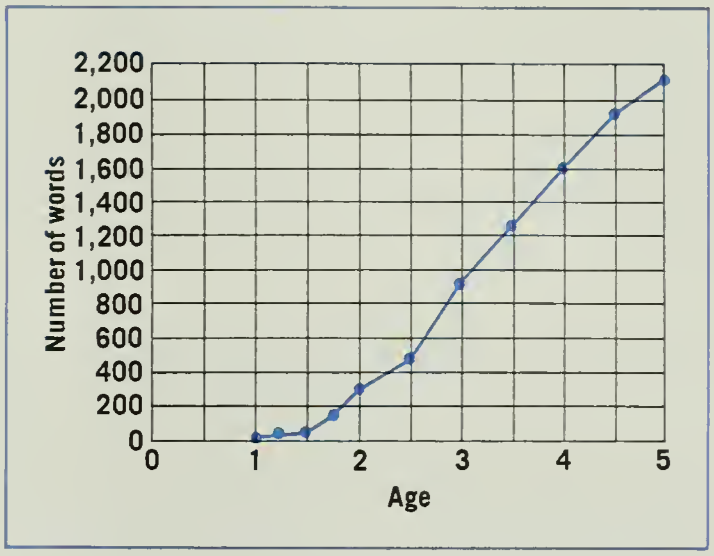
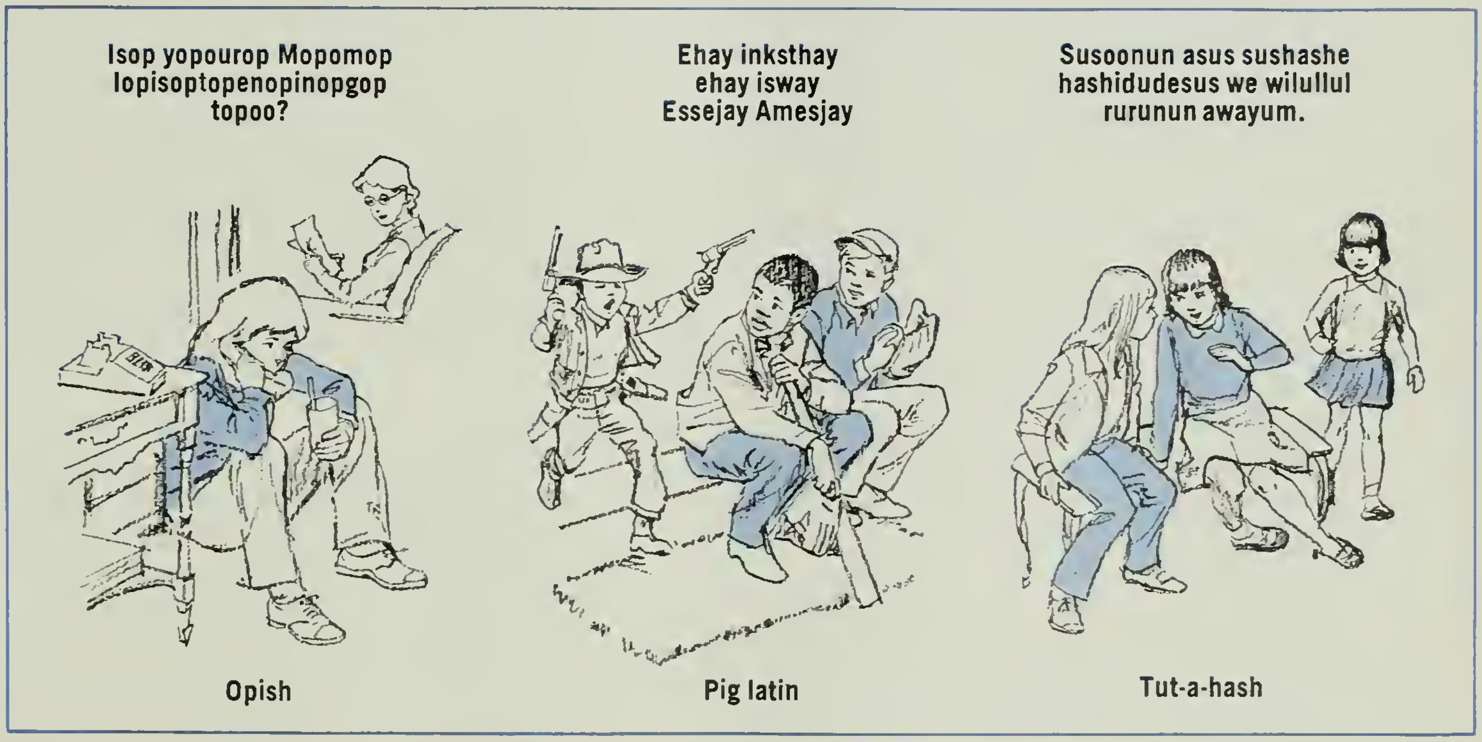


Figure 8-5. Increase in vocabulary with age. (Adapted from L. P. Lipsitt, Learning processes of human newborns, Merrill-Palmer Quart., 1966, **12,** *45-71. Used by permission.)*

At every age, children show marked individual differences in both the length and pattern of their sentences. Bright children and those from the higher socioeconomic groups usually use longer and more



Isop yopourop Mopomop lopisoptopenopinopgop topoo?
Ehay inksthay ehay isway Essejay Amesjay
Susoonun asus sushashe hashidudesus we wilullul rurunun awayum.
Opish
Pig latin
Tut-a-hash

Figure 8-6. Secret language. (Adapted from C. Brownstone, Why children's secret language? Parents' Magazine, *May, 1940. Used by permission.)*

complex sentences than the average. When playing with their contemporaries, children are likely to converse in phrases rather than complete sentences. When with adults, they lengthen their sentences somewhat, but in a classroom situation, where there are both children and a teacher, they lengthen them even further (78, 80).

Pattern of Speech Development

Whatever their language, all children must master the four major tasks in learning to speak: comprehension, pronunciation, vocabulary building, and sentence formation. Thus, the pattern of speech development is much the same for all. The rate of learning varies, however, depending on intelligence and environmental stimulation. Extensive studies of motor control and of speech reveal that the pattern of speech development closely parallels the pattern of motor development (69, 86).

In speech development, the pattern is one of spurts followed by resting periods, or *plateaus*—times when no apparent improvement occurs. Whenever a new motor act is being established, there will be a temporary plateau in the pattern of speech development. Between the ages of 9 and 18 months, the urge to walk seems to be more powerful than the urge to talk. After walking becomes automatic, the baby's attention is directed to talking, and there are rapid gains in speech. When the child begins school, his eagerness to learn—a characteristic of the first-grader—gives him a strong motivation to learn new words. By the second or third grade, however, his interest in school and his motivation to learn begin to wane. Since the curriculum areas remain much the same though on a higher level, he is introduced to fewer new words, and his speech development reaches a plateau.

FACTORS RESPONSIBLE FOR VARIATIONS IN PATTERN

Individual variations in the rate of speech development, the size and quality of the vocabulary, and the correctness of pronunciation occur at every age level. A number of factors contribute to these variations.

Health. Severe and prolonged illness during the first 2 years of life delays the beginning of speech and the use of sentences by 1 to 2 months. A sick child has little incentive to talk; he is not feeling well, and his every need is anticipated for him (24, 63, 76).

Intelligence. A correlation between speech development and level of intelligence exists even in the very young child. After the age of 2 the correlation is quite high (20).

Studies of mentally deficient children show that the lower the intellectual rating, the poorer the speech. Children of high IQ, on the other hand, show marked linguistic superiority, both in size of vocabulary and in length and correctness of sentence structure (20, 30, 116).

Socioeconomic Status. Children from the upper socioeconomic groups are, at every age, more articulate than those from the lower groups (27, 33). They speak earlier, express themselves better, and talk more. There is clear-cut evidence of a marked relationship between the child's speech and the occupational status of the father. This relationship is well established even among 5-year-olds (18, 33).

Environmental factors are closely correlated with speech development. These include such important influences as the number of children's books the child sees, the opportunities he has for constructive play, the number of hours he is read to or told stories, the number of adults in daily contact with him, and the number of playmates he has (9, 33, 78).

Sex. Studies of sex differences in speech development report that boys lag behind. At every age, their sentences are shorter and less grammatical, their vocabularies are smaller, and their pronunciation is less accurate. The differences become more pronounced with every passing year and are greater among children of the lower socioeconomic groups than among those of the higher groups (29, 78, 80).

There is no completely satisfactory explanation of sex differences in speech development, nor do we know whether this difference is universal or characteristic of our culture alone. It may be that the traditional concern about sex-appropriate behavior has placed linguistic performance on the "feminine" side.

Family Relationships. A *healthy* relationship between the child and other family members, especially the mother, facilitates speech development. By contrast, an *unhealthy* family relationship—in which the young child is either pampered or neglected—may not only result in speech retardation but also lead to such speech disorders as lisping, stuttering, and slurring (100, 127).

Size of family also affects speech development. An only child, for example, gets a great deal of parental attention. Furthermore, he is spared sibling rivalry, which sometimes manifests itself in speech disorders, especially stuttering (76, 127).

While studies of *ordinal position* in the family have given little attention to the effect it has on speech development, there is some evidence that the speech of firstborns is superior, age for age, to that of laterborn children in the same family (2). This is not because firstborns are intellectually superior, but rather because parents spend more time teaching them and encouraging them to speak.

Personality. Regardless of IQ, a shy, withdrawn child will speak less than one who is more extroverted. A bright but impulsive child is far more likely to make grammatical mistakes and use incorrect pronunciation than a less bright child who is calm, deliberate, and precise in speech (102). Children who are zestful and who show an enthusiasm for life, it has been reported, have greater verbal fluency than children who are placid or bored (29).

Well-adjusted children tend to speak better both qualitatively and quantitatively than those who are poorly adjusted. In fact, the child's speech is often regarded as an indication of his mental health (29). In speech disorders, the role of poor mental health is especially evident.

Defective Speech

During the first 4 years of life, every child has difficulty controlling his speech mechanism. The result is that speech defects are almost universal. Because of his limited understanding, the child cannot always make the correct association between meanings and sounds. In addition, he has trouble combining words into sentences.

MEANING OF SPEECH DEFECTS

When a child speaks correctly or nearly correctly but on a level below that of the norm for his age, he has a *quantitative* speech lag. His vocabulary, for example, is smaller than that of other children his age, and his pronunciation is on a more infantile level. This condition is generally called *delayed speech*. By contrast, *defective speech* is inaccurate speech; it varies *qualitatively* from the norm for the child's age and contains more than the usual number of errors.

The term "defect" is popularly applied only to defects in pronunciation, but in its broader sense it can be applied to *any* form of speech that is incorrect. The term "disorder," on the other hand, refers to a serious defect in pronunciation. A speech disorder is thus a kind of speech defect.

Most speech defects can be categorized under one of three major headings: defects in word meanings, in pronunciation, and in sentence structure.

DEFECTS IN WORD MEANINGS

In every language, a number of meanings are associated with words that *sound alike,* even though their spelling may be different. For example, "rain," "rein," and "reign" sound alike but have very different meanings and different spelling. Under such conditions, it is not surprising that, while learning meanings, the child makes many wrong associations.

Such errors interfere with communication. They affect the child's comprehension of what others say as well as their comprehension of what he says. Many disciplinary problems arise not from the child's willful breaking of rules but from his misinterpretation of the words used in the rules. This matter will be discussed further in the chapter on moral development.

Ordinarily, errors of association are quickly checked by parents or teachers, and the child learns to use words more correctly as he grows older. He also learns to avoid words whose meanings he is unsure of. Unless he verbalizes his interpretation of a word, however, or behaves in a manner to suggest that he misunderstands it, adults cannot know what the word means to him and cannot correct wrong associations.

DEFECTS IN PRONUNCIATION

Learning to pronounce words is a complicated skill, and all young children mispronounce some of the words they use. Each year, however, there should be a gradual decrease in mispronunciations.

Most defective pronunciation is due to faulty learning and can be corrected relatively easily. Some is due to malformation of parts of the speech mechanism, such as the teeth, palate, lips or jaws. It may also be caused by imperfect hearing and muscular weakness or partial paralysis of the tongue and lips, as in some cases of cerebral palsy. Under such conditions, defective speech is more persistent and correction is far more difficult.

Speech Errors. From 18 months to 3 or 4 years of age, most children make many mistakes in pronunciation. The errors that characterize baby talk generally come from faulty learning which has not been corrected. In fact, some parents encourage baby talk because they think it is cute. The faulty learning that gives rise to baby talk is more often the result of the child's crude perception of the words he hears than of his inability to pronounce the elemental sounds. Furthermore, in his zeal to repeat everything he hears, he often makes only sketchy efforts, omitting the harder details. In "cream," for example, he is likely to omit the letter *r* because it takes considerable effort to pronounce two consecutive consonants. The most common errors in pronunciation are given in Box 8–5.

Baby talk varies from child to child not only in quantity but also in quality. It is greatly influenced by the order in which the child learns to pronounce certain letters or combinations of letters as well as by how much guidance and encouragement he has in pronouncing words correctly.

Speech Disorders. Speech disorders are especially common in families where one or both parents are neurotic, where parent-child relationships are poor, where there is a dominant mother and submissive father, or where the mother ignores the child, is exceptionally possessive or demanding of him, or sets excessively high levels of aspiration for him. They are often correlated with dependency, soiling, destructiveness, restlessness in sleep, temper tantrums, negativism, timidity, and food finickiness (81, 100, 127). All this suggests that speech disorders are a part of the *syndrome of poor adjustment.*

Box 8–5

COMMON ERRORS IN PRONUNCIATION

- Omission of one or more syllables, usually in the middle of the word, as in "buttfly" for "butterfly."
- Substitution of letters or syllables, as in "tolly" for "dolly" or "handakerchief" for "handkerchief."
- Interchanges of letters or syllables in the longer and less used words, as in "tautomobile" for "automobile."
- Omission of consonants that are difficult to pronounce, such as *z, w, s, d,* and *g.*
- Abbreviation of difficult consonant blends, such as *st, str, sk, dr,* and *fl.*
- Vowels, especially *o,* which is the most difficult to say.

Disorders of speech may develop at any time during the life-span. They are most likely to develop, however, during the preschool years when the child is trying to master the speech task and when any emotional disturbance will upset his progress. Many preschool speech disorders become habitual and far more noticeable as the child grows older if steps are not taken to correct them. The most common speech disorders of childhood are outlined in Box 8–6, along with a brief explanation of their causes.

Damaging Effects of Defective Pronunciation. Even mild defects, such as baby talk, are handicaps to personal and social adjustment. The school child who mispronounces his words feels conspicuous, embarrassed, and anxious. He dislikes being called on to speak because he fears that his classmates will laugh at him.

Many maladjustive forms of behavior stem from feelings of inadequacy caused by or intensified by a speech defect. Defective speech thus becomes a part of the syndrome of poor adjustment. Often a vicious circle is set into motion. The child with defective pronunciation, for example, may fail to take advantage of educational opportunitites and thus become an underachiever. Knowing that he is not living up to his potentialities, he becomes more anxious, and this aggravates his speech defect.

DEFECTS IN SENTENCE STRUCTURE

Even the child with good speech models in the home makes many grammatical errors. The young child's major problems in sentence structure are in the use of pronouns and verb tenses. Few 2-year-olds use pronouns correctly; among 3-year-olds, about 75 percent do.

From the age of 3, children tighten their hold on grammar, though they continue to make grammatical mistakes throughout the elementary school years and into high school and college. Children from the lower socioeconomic groups who hear patterns of incorrect speech generally make more grammatical errors at every age than those from more privileged homes. There is a high correlation between the grammatical errors made by the child and those made by his parents (24, 106). There is also a sex difference in grammatical mistakes, with boys at every age making more mistakes than girls (78, 82, 85).

Often a child's grammatical mistakes seem funny to adults, but they are psychologically damaging to the child. That is why they should not be taken lightly or ignored in the hope that the child will outgrow them or automatically correct them when he studies grammar in school. Some examples of the psychological damages of defective grammar are given in Box 8–7.

Bilingualism

For some children, bilingualism is a serious obstacle to learning to speak correctly. Bilingualism is the ability to *use* two languages. It involves not only speaking and writing but also understanding what others attempt to communicate orally or in writing. A truly bilingual child is as much at home in a foreign language as in his mother tongue; he is able to speak, write, and read both languages with equal facility.

Few children are truly bilingual. Most are more adept in the use of one language than the other. There are many combinations of bilinguality: A child may be able to understand and use both languages equally well; he may be able to speak both, but write only one; or he may be able to understand both, but speak only one.

BILINGUAL DOMINANCE VERSUS BILINGUAL BALANCE

Bilingual *dominance* means that a person uses two languages, but uses one better than the other. Bilingual *balance* means that he uses both languages equally well. This applies to reading and writing as well as speaking.

Whether there is dominance or balance in bilingualism can be determined by the speed and accuracy with which the two languages are used. When a child has learned a language well, he speaks fluently. That is, he speaks with little or no hesitation, thus increasing his *speed*. Fluency is generally, though not always, characterized by a minimum of grammatical errors. The fluent speaker at least shows greater *accuracy* than the less fluent speaker (107).

Which of the two languages will be the dominant language will depend largely upon the circumstances under which the speaker became bilingual. In America today, most bilingual children have foreign-born parents. In the home and often in the neighborhood,

Box 8–6

COMMON SPEECH DISORDERS OF CHILDHOOD

Lisping

Lisping consists of letter-sound substitions. The most common substitions are *th* for *s* or *z*, as in "Thimple Thimon," and of *w* for *r*, as in "wed wose." Lisping is usually caused by deformation of the jaw, teeth, or lips and a tendency to cling to infantile speech. A missing front tooth may cause a temporary lisp. Lisping in adolescence is usually due to a space between the upper front teeth.

Slurring

Slurring is indistinct speech due to inactivity of the lips, tongue, or jaw. It is sometimes caused by paralysis of the vocal organs or lack of development of the musculature of the tongue. When he is emotionally upset or excited, a child may rush through his words without pronouncing each one distinctly. Slurring is most common during the preschool years before speech has become habitual.

Stuttering

Stuttering is hesitant, repetitious speech accompanied by spasms of the muscles of the throat and diaphragm. It comes from a breathing disturbance due to partial or total incoordination of the speech muscles. It resembles stage fright in that the person seems at a loss to know what to say. It is usually accompanied by stammering, a deadlocking of speech in which the speaker is temporarily unable to produce any sound. Then, as muscular tension is released, a flood of words pours out, soon to be checked by another spasm. Stuttering begins when the child is between 2½ and 3½. Normally, it decreases as he makes better social and home adjustments, only to flare up again when he enters the broader environment of the school.

Cluttering

Cluttering is rapid and confused speech which is often mistaken for stuttering. It usually occurs in children whose motor control and speech development are delayed. It is an exaggeration of the errors of speech made by normal people. Unlike the stutterer, the clutterer can improve his speech if he pays attention to what he wants to say.

the language of the country from which the parents and neighbors have come is used. Only after the child enters school has he enough contacts with English-speaking people to find it essential to learn English. Because he spends more time in the home than in the school or the areas of the community where English is spoken, he becomes far more proficient in the language of his parents than in English. For him, the mother tongue of his parents is the dominent language.

Few American-born children have experiences similar to those of children with foreign-born parents. Should an American family live in a foreign country, the child will usually learn the language of the country in which he lives as the dominant language. His use of English will be limited mainly to communication with his family or friends of the family.

Box 8-7

PSYCHOLOGICAL DAMAGE FROM DEFECTIVE GRAMMAR

Incorrect Thinking

Defects in sentence structure can give a totally unintended meaning to a sentence. They affect the child's understanding of what others say as well as their understanding of what he is trying to communicate. Should the child say "I ate my lunch" instead of "I eat my lunch," he will create the impression that he has already eaten when, in reality, he means that he is now ready to eat.

Unfavorable Social Impressions

Judgments by others are often made on the basis of first impressions. The child whose grammar is defective will create a less favorable impression than one whose speech is correct. Furthermore, speech becomes a "status symbol" as the child grows older.

Unfavorable Self-evaluation

When the child realizes that he is judged unfavorably by others, even though he may not realize why, he will evaluate himself unfavorably and this will have a damaging effect on his personality. Grammatical mistakes lead to unfavorable self-concepts and feelings of inferiority long before childhood comes to an end.

Habitual Patterns of Speech

With repetition, grammatical mistakes become habitual. If the child becomes accustomed to hearing words in certain combinations, any change in the combinations sounds incorrect. A child, for example, who has become accustomed to saying "He done," will claim that it sounds funny to say "He did," and will resist making the change.

LEARNING TASKS IN BILINGUALISM

Every language has its own vocabulary, its own grammatical structures, its own word meanings, and its own pronunciation of different letters or letter combinations. The child who is expected to learn two languages *simultaneously* must learn two different words for every object he names or for every thought he wishes to express. He must learn two sets of grammatical forms—one often conflicting with the other.

Furthermore, he must learn how to pronounce the same letters or letter combinations differently; the letter *r*, for example, is pronounced quite differently in French and in English, though it is the same letter on the printed page. These learning tasks are very difficult for the student in junior or senior high school; they are even more difficult for a young child who has not yet mastered one language well enough to feel at ease when using it. The young child is likely to combine the two languages rather than keep them separated into two distinct language systems.

When the second language is begun after the first has progressed to the point where it can be used automatically, the tasks involved in learning the second are still far from easy. Conflicts in pronunciation, in grammar, and in word associations will be confusing. In addition, the speech mechanism is not so easy to control as it was when the child was younger. Having become accustomed to pronounce letters or letter combinations one way, he finds it hard to pronounce them differently. He can, of course, master the new language if his motivation to do so is strong enough and if he has the necessary guidance and learning opportunities.

EFFECTS OF BILINGUALISM

The effects of bilingualism depend not so much upon bilingualism, per se, but upon the conditions surrounding it. Five conditions are especially worth noting.

First, when the dominant language is different from the one used by the children with whom a child associates at school or in play, he finds it difficult to communicate. He thus has problems in social adjustment and in his schoolwork. Since he is not linguistically ready for school, he feels insecure and is handicapped from the very start. His achievement on intelligence tests, especially those which use language, likewise will reflect the handicap of bilingualism.

Second, learning two languages simultaneously in the early years is very likely to delay speech development in both. Size of vocabulary, sentence length and construction, and articulation—all are likely to suffer. Figure 8–7 shows a comparison of bilingual and monolingual children in different tests of linguistic achievement. The bilingual child is also liable to be confused in his thinking, and this makes him self-conscious about talking. Becoming bilingual after one language is well mastered entails few of these detrimental effects.

Third, if the dominant language is a foreign one, the child usually acquires an accent which is never completely lost. In addition, he makes more grammatical mistakes in English than children of his age and level of intelligence who are monolingual or whose dominant language is English. He becomes nervous and emotionally excited when he uses English—a condition which often leads to stuttering. This intensifies his speech difficulties as well as his social-adjustment problems. If he is so self-conscious that he refuses to converse with his peers, he will be subjected to social neglect or rejection.

Fourth, around the age of 4, when the child begins to distinguish racial differences, he also learns that many people regard some racial groups as inferior and others as superior. Acceptance of these cultural stereotypes leads to unfavorable social and self judgments of those who speak a language associated with a group regarded as inferior. The psychological damage from prejudice, both to oneself and to others, is one of the great problems of our age.

Fifth, the bilingual child whose dominant language is a foreign language and whose parents live and act like foreigners will be different from other children in many ways. His home and his manner of dressing and eating will often be different, and he will be subjected to child-training methods different in many respects from those used in the homes of his schoolmates. This syndrome of "differentness," constantly apparent in his speech, is likely to be a serious handicap to social adjustment. If he speaks with a foreign accent, it proclaims to all that he is "different."

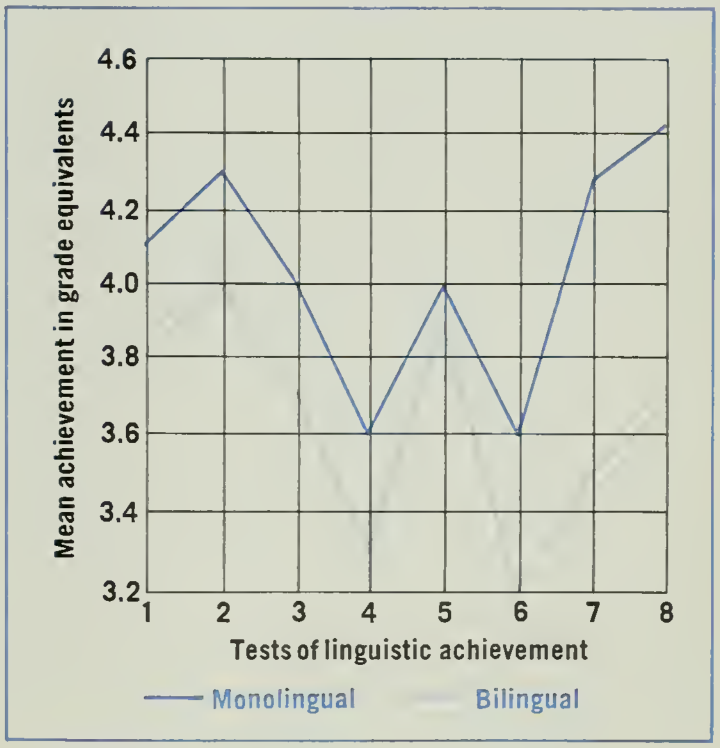
From a careful study of these conditions, it is logical to conclude that bilingualism is more of a handicap than an asset to a child, especially during the preschool years. This opinion is widely held by psychologists and educators.

Amount of Talking

After a child begins to speak, he talks almost incessantly. While he prefers to talk to people, he will also talk when he is alone, playing with his toys. He will even talk to people who pay little or no attention to what he is saying or who do not bother to answer his questions. The older child resents such treatment, but the young child enjoys the sense of power and independence his new skill gives him. Talking is thus a source of tremendous personal satisfaction. It has been estimated that, on the average, 3- and 4-year-olds speak 15,000 words a day, or approximately 5½ million words a year. Every year they speak more and use more words (75, 78).

At first, the young child's speech generally accompanies *motor activity.* Running, playing, eating, and bathing all have some vocal accompaniment—shouts,

Figure 8–7. Comparison of bilingual with monolingual children in different tests of linguistic achievement. (Adapted from Sister M. A. Carrow, Linguistic functioning of bilingual and monolingual children, J. speech hear. Disord., *1957,* **22,** *371–380. Used by permission.)*



grunts, squeaks, or words. All these have a definite relationship to what the child is doing and are, in reality, a form of thinking out loud. The little girl playing with her doll will say, "I cover dolly," as she puts a cover over the doll. Very little of the young child's speech is conversational; instead, it is more of a monologue, a running commentary on his own actions.

Ordinarily, children talk less and less as puberty approaches and progresses. This is largely because they are not feeling up to par physically, but it is also due to their concern about the many problems that puberty gives rise to. They not only talk less, but when they do talk they often tend to be sullen, disagreeable, and quarrelsome.

The amount of talking is influenced by *individual differences* in the need for speech. A child who is deprived of affection, for example, will talk more when he is with adults and will make more demands on them than the child who feels secure in the affection of parents and peers. The child whose need for affection is adequately met will use speech, not to get attention, but to learn about his environment or merely to satisfy his desire to converse.

SIGNIFICANCE OF AMOUNT OF TALKING

The earlier the child begins to speak, the more practice he gets, and the greater his verbal facility. This increases his self-confidence. The child whose speech is delayed gets less practice. A delay of 6 months to 1 year in starting to talk means, in many cases, that the child is not ready, linguistically, to begin school at the age of 6. Once he begins to talk, he may catch up to the speech level of his age-mates, but lack of practice is likely to deprive him of the self-confidence essential to fluent speech. As a result, he hesitates to express himself orally; this handicaps him in his academic and social adjustments.

As children grow older, they talk with one another more and more; this helps them to play together in a social and enjoyable way. The quiet child finds himself left out of things. He may not be rejected by his playmates, but he is neglected because he has little to contribute. He often develops feelings of inadequacy which persist long after he has caught up with his peers in ability to speak. A close association has been reported between speech and social acceptance throughout childhood: children who talk most are, other things equal, the most popular (77). This will be discussed in more detail in Chapter 11.

Content of Speech

Studies of the content of children's speech at different ages give information about the size and correctness of vocabulary, ability to combine words into sentences, dominant interests, and concept of self. From what the child says, one can tell how he feels about himself and his relationships with others and how he compares himself with his peers. One can also learn something about his emotional states—whether he is happy, frightened, angry, jealous, or curious. Speech content is, therefore, a thermometer of the child's emotional reactions.

CONTENT CATEGORIES

The content of children's speech has been classified into two major categories: Egocentric speech and socialized speech. The characteristics of these two categories are given in Box 8–8.

Most of the young child's speech is egocentric. As the desire to be one of a social group increases, the child uses speech as a social tool. When this will occur is difficult to tell. Experimenters have reported ages ranging from 2 to 7 or 8 years. During these years, children talk more to peer group members than to adults if peer group members are available (77).

The shift from egocentric to socialized speech depends not so much upon chronological age as upon other factors. The child's personality is an important determinant. Egocentric children will continue to talk about themselves at every age and will show little interest in getting the other person's point of view. Social experiences will extend the child's interests and his desire to exchange ideas. As the group with which the child associates grows larger, his speech will become less egocentric.

Socialized speech predominates when children are with their age-mates. Adults encourage the child to talk about himself. They ask him what he is doing, how he likes school, or what he plans to be when he grows up. This encouragement to egocentric speech is lacking when the child is with his peers. Consequently, he steers his conversation into channels that will hold their attention and win their approval, thus strengthening his acceptance by them.

CONVERSATIONAL TOPICS

What children talk about is influenced by their ages, the breadth of their experiences, and their personality patterns. Mainly, they talk about themselves and their activities, their families, and their relationships with different family members. Many topics that characterize adult conversations appear in a rudimentary form in the conversations of preschool children —topics such as clothes, likes and dislikes, where one lives, and matters of everyday routine.

Among older children, the variety of topics is wider, owing to the diversity of their experiences. Much of their conversation centers around school activities; their own experiences and accomplishments: their families and pets; sports; trips; clothes; movies, television programs, comics, and other forms of entertainment; and tabooed subjects, especially sex and sex organs. The child feels freer to discuss these topics with his contemporaries than with adults.

METHODS OF PRESENTATION

The child's method of presenting what he says often has more influence on the reactions of others than the content of what he says. Young children tend to use matter-of-fact statements or questions; older children tend to use a variety of more dramatic methods. Some of these are learned by trial and error, others by imitation.

Exaggerations. From 5 to 7, in particular, when imagination outpaces reasoning, the child tends to exaggerate; his imagination fills in the gaps in reality. He discovers, mainly through trial and error, that exaggerations—statements which *seem* true to him—are interpreted as "white lies" by adults and win more attention than matter-of-fact remarks. As a result, he either consciously or unconsciously begins to exaggerate whenever he wants to win the attention or approval of others.

Boasting is a form of exaggeration. The child "embroiders" statements of fact to make them more colorful and to increase their attention value. There is an element of truth in all boasting, but the favorable aspects of the truth are given proportionally more emphasis than the unfavorable.

Boasting is greatest between the ages of 8 and 12—when both boys and girls are most anxious to impress their peers and ensure their status in the group. It is not limited to these years, however. Most children who discover the attention value of exaggeration also discover the ego-inflation value of boasting, and they use it whenever they feel inadequate or inferior. *What* children boast about is determined largely by the values of the peer group. Since toys and material possessions are important to a young child, he boasts about such things as the family car, his clothes and toys, or even the family pets. Skills are more important than material possessions to older children; therefore, they boast about their strength and their skill in games. Sex differences in boasting appear only after the interests and values of the sexes change —about the time children enter school. At that time, boys boast mainly about their athletic abilities, and girls boast mainly about material possessions, especially clothes.

Name Calling. Among older children, name calling is a form of boasting. When a child calls another by a derogatory name, the name caller is indirectly saying that he is superior to the other child. If he calls someone a "dumbbell," an "idiot," or a "shrimp," the child is inflating his own ego by implying that he is superior. Furthermore, name calling has great attention value. The child who does the name calling is the focus of attention, not the one who is the butt of the ridicule. Consequently, the child who wants attention and wants to impress others with his superiority

Box 8–8

MAJOR CATEGORIES OF SPEECH CONTENT

Egocentric Speech

In egocentric speech, the child talks either for his own enjoyment or for the pleasure of associating with anyone who happens to be present. He makes no attempt to exchange ideas or to consider the other person's point of view. It is, thus, pseudo conversation or monologue. It reflects the child's inability to analyze his own thought processes, and its major value is that it is an aid in overcoming this inability.

Socialized Speech

Socialized speech occurs when the child establishes social contacts with others. Since questions command more attention than statements, much early speech takes the form of general questioning. Later the questions become more specific. The older child discovers that commands and threats lead to social disapproval, so he gradually abandons them in favor of requests.

often finds name calling a more satisfactory way of boasting than making a direct statement about his superior possessions or abilities.

Criticism. Not only do young children criticize other people, but also they make critical comments about animals and inanimate objects. They are likely to call a toy that will not work a "dumb toy" or to refer to a train that is late as a "stupid train." A pet that will not do what the child wants him to do is "my mean old cat."

Critical comments serve to inflate the ego of the child who feels inadequate; they also, he soon discovers, have great attention value. For the most part, the young child will criticize another person behind his back. Older children often address their criticisms to the person being criticized. They use criticism mainly to comment on the conduct and personality of another child—his lack of knowledge, his clumsiness, his failure to do what he was expected to do, or his clothing and personal appearance.

Tattling. Tattling is a form of criticism. A child tattles about another behind his back, to a person whose assistance he hopes to gain. Typically, a young child will go to a parent or teacher with such complaints as "He took my ball" or "He broke my skate." If he feels that the teacher has been unfair to him, he criticizes her behind her back, tattling to his parents about her "unfairness" or her "having favorites."

In spite of the personal satisfaction a child derives from tattling, it is one of the quickest and surest ways of winning social disapproval. Many generations of children have been brought up on some version of the old rhyme

Tattle tale tit,
Your tongue shall be slit,
And all the dogs in town
Shall have a little bit.

From this, they learn how the social group feels about tattling and how likely it is to lead to social rejection. Most children abandon tattling when the desire for social acceptance becomes strong.

Derogatory Comments. Many children inflate their egos by making derogatory comments about others. Beginning around the age of 3 years, children use this method of presentation to relieve injured feelings and to let other children know how they feel about them. Typical examples are "You're a crazy cat," "You're a crybaby," "You're silly," and "You're nuts." As children grow older, they tend to use more derogatory comments and a wider range of adjectives.

The older child does not reserve his derogatory comments for his age-mates and siblings. When he starts to play with a peer group, he discovers that talking about *all* adults in a derogatory manner is the "thing to do." His parents are "mean," his grandparents are "a little cuckoo," or the President is "so dumb he doesn't know what it's all about." The child is indirectly telling his friends that he is independent, that he is not "tied to anyone's apron strings," and that he is a "good guy" who uses words not approved by the social group.

Derogatory comments usually reach their peak during the early part of puberty. The child is not at his best physically, he is worried about the physical and psychological changes that are taking place within him, so he develops a bellicose attitude toward everything and everyone. This attitude is expressed in derogatory comments, often of an intensity that can be labeled vitriolic.

Psychological Damage from Socially Unacceptable Speech

If judged by adult standards, what a child says and how he says it are not always socially acceptable. People at all ages are judged by their speech, and a child whose speech is socially unacceptable makes a poor impression and often acquires an unfavorable reputation. The effect on his personal and social adjustments may be severe. Furthermore, if talking in a socially unacceptable manner becomes habitual, it will be an increasingly serious handicap each year. A survey of some of the far-reaching effects of socially unacceptable speech will highlight its significance.

First, the child who talks mostly about himself thinks more about himself than about others. Egocentric speech is thus not an isolated pattern of behavior; instead, it is part of the syndrome of egocentricity. Studies of social acceptance reveal that children who are egocentric are less popular than those who think of others and consider their welfare. Children whose speech is mainly egocentric have little of interest to offer to others; they soon acquire the reputation of being "bores." This will be discussed more fully in the chapter on social adjustments.

A child normally shifts from egocentric to socialized speech as his social interests broaden. Just because he talks about other people and other things, however, is no guarantee that he will talk about them in a manner that will lead to good social adjustments. For example, a child may talk to another child about the child's activities; but if what he says is critical or derogatory, it can have an unfavorable effect. Similarly, the effect of egocentric speech on the child's adjustments will be influenced by his method of presentation. Talking about himself in a matter-of-fact way may be merely boring; talking about himself in a boastful way may be so antagonizing that other children will reject him.

The child who is constantly boasting makes other children feel inferior; they resent his implications that he is superior. The boaster is likely to acquire the reputation of having a "swelled head" or of being "stuck-up." In time, the peer group realizes that the boaster is exaggerating; this does not add to their respect or liking for him.

Boasting also affects the child's personal adjustments. While he may derive temporary ego satisfaction from it, he will build up an unrealistic concept of himself and his abilities. As his capacity for reasoning increases, he will recognize the gap between what he says he is and what he actually is—a gap that will lead to self-dissatisfaction and discontent. To close this gap, he will look for scapegoats upon whom he can project the blame for his not being, in reality, what he said he was.

Second, criticism in its many related forms—tattling, name calling, and derogatory comments—may be ego-inflating for the child, but it is ego-deflating for the person who is criticized. It irritates people and breaks up friendships. Criticism within the family is one of the causes of deterioration in family relationships as children grow older. Parents and older relatives regard the child's critical comments as impertinence or lack of respect and reprove him for them. Siblings, too, resent name calling, tattling, and critical comments, and they generally retaliate in kind. If parents try to stop the quarreling that ensues, they are accused of playing favorites, and parent-child relationships deteriorate still further.

Third, a cynical and belligerent attitude damages both the child and those who are subjected to his remarks. Not only is the child building up habits of speech which will lead to social rejection with its accompanying psychological damage, but he is also building up a distorted concept of his superiority and his right to bully others. Those who bear the brunt of the child's comments cannot escape wondering whether they are as inadequate and inferior as the child's criticism suggests.

Fourth, children can be permanently damaged by repeated criticism. The "female inferiority complex," for example, is largely the result of the critical and derogatory comments girls are subjected to by brothers and male classmates. The more important a critical person is to a child, the more the child will be influenced by what he says. Thus there is little evidence of the truth of the old saying, "Sticks and stones will hurt my bones, but words will never harm me"; critical and derogatory words certainly *will harm* a child.

Improving Children's Speech. It is widely agreed among educators and psychologists that most children fall below their capacities in speech development. It is also widely agreed that far too many parents tend to accept the traditional belief that children will outgrow poor speech—speech that is either faulty and limited in vocabulary or unsocial in content or form of expression.

Some parents even delay speech development. They discourage the child from speaking because they find it annoying or distracting. Many find the child's questions embarrassing, or feel incompetent to answer if he asks about sex, birth, or elimination. Some parents believe that the child should be "seen but not heard" except when he is spoken to. Others, less authoritarian in approach, discourage the child on the ground that it is bad taste for a child to monopolize a conversation when adults are involved. Whatever their reason, discouraging speech is damaging to the child's speech development. It limits his opportunities to practice speaking under the guidance of adults, which is essential to learning to speak correctly and in a socially approved way.

A number of constructive suggestions to help parents and teachers guide the speech development of children are given in Box 8–9. The aim is to see that children measure up to their capacities so that their speech will be an asset in personal and social adjustments.

In conclusion, remember that speech is not a hereditary trait, even though the foundations for speaking are a part of the child's hereditary endowment. Since speech must be learned, it can be controlled. Control should be such that the child will learn to speak in a way that will contribute to his personal and social adjustments. Any aspect of speech that might lead to poor adjustment should be checked as soon as it appears to avoid its developing into a habit. This includes grammatical mistakes as well as the tendency to make derogatory comments about others. Such a habit is extremely difficult to correct later even though the child may realize the damage it gives rise to. Just as in the development of motor skills, guidance and correction are most important during the early stages of speech development. At that time one can prevent errors from creeping in and becoming well-learned before they are recognized. If this policy is followed, the task of learning to speak well will be easier.

Highlights of Chapter 8

1. Speech is a form of language in which articulate sounds or words are used to convey meanings; language includes *all* means of communication—speaking, gestures, writing, facial expressions, pantomime, and art.

2. Speech plays an important role in the child's social relationships, in the evaluation others make of him, in self-evaluation, and in academic achievement.

3. The three common prespeech forms, crying, babbling, and gestures, are stopgap measures that are useful until the child is maturationally ready to learn to speak.

4. As is true of motor skills, there are four essentials in learning to speak: Readiness to speak, opportunities for practice, motivation, and guidance in learning.

5. The major tasks in learning to speak include comprehension of what others say; learning to pronounce

Box 8-9

SUGGESTIONS FOR IMPROVING CHILDREN'S SPEECH

- Do not accept the traditional belief that children automatically outgrow poor speech. Instead, accept the scientifically proved fact that good speech can best be learned by imitating a good model and by guidance in how to do so.
- Encourage children to talk in the presence of adults so that the correctness of their speech can be checked. Young children, especially, can quickly develop habits of incorrect speech.
- Criticize faulty speech in a tactful and constructive way to avoid undermining the child's self-confidence or arousing his resentment.
- Set a good model of speech for the child to imitate. Parents can improve their own speech by reading good books, by listening to good radio and TV programs, and by direct study.
- Encourage the child to be interested in language by explaining the meaning of new words in terms he can understand and by answering his questions about new words.
- Do not discourage the child from asking questions or from joining in the conversation. If he seems to be monopolizing the conversation in order to get attention, point out tactfully that he should give others an opportunity to talk also.
- Train the child to be an attentive listener by shifting roles from speaker to listener and then back to speaker and listener.
- Encourage the child to talk when he is with his age-mates as a means of becoming a part of the social group. This can best be done by developing the habit of good communication at home.
- Encourage the child to engage in socialized speech by discouraging egocentric speech. This can best be done by developing the child's interest in a wide range of subjects.
- Provide the child guidance in how to express himself. No child has enough experience or social insight to realize how harmful certain methods of self-expression can be. Guidance in self-expression has two aspects: Rules and a good model. No child can be expected to talk in a socially approved manner if he is surrounded by people who criticize, tattle, or call names. Rules serve as guideposts to tell children what is socially acceptable and what is unacceptable.

words so that they can be understood by others; building a vocabulary adequate to express one's thoughts, feelings, and wishes; and combining words into meaningful sentences.

6. Because comprehension is one of the easiest tasks in learning to speak, the comprehension vocabulary is normally larger than the active vocabulary.

7. Learning to pronounce words comes from imitating the speech of others. This normally begins at the end of the first year of life.

8. The child's vocabulary consists of words in general use as well as those with special meanings, as in the case of number words, and its size is determined by the correctness of pronunciation and the ability to associate meanings with sounds.

9. Combining words into sentences usually begins when children are 2 years old. Sentences gradually increase in length and in accuracy of structure.

10. The pattern of speech development closely parallels the pattern of motor development and is influenced by such factors as health, intelligence, socioeconomic status, sex, family relationships, and personality.

11. Defective speech is inaccurate speech due to errors in word meanings, pronunciation, and sentence structure. Speech disorders are serious defects in pronunciation, the most common of which are lisping, slurring, stuttering, and cluttering.

12. Bilingualism—the ability to use two languages for speaking, reading, and writing—may be characterized by dominance, in which one language can be used with greater facility than the other, or by balance, in which both languages are used with equal facility.

13. How much a child talks influences his self-concept through its effect on the type of social adjustments he makes.

14. Early speech is typically egocentric, in which the child talks mainly about himself and his interests, while later speech is typically socialized, in which the child talks about others, though often in such unsocial forms as boasting, exaggerations, criticism, name calling, and making derogatory comments.

15. Because socially unacceptable speech has far-reaching and damaging effects on the child's personal and social adjustment, the responsibility for teaching the child to speak in a socially acceptable way falls to parents, teachers, and other adults.

Bibliography

1. Aldrich, C. A., M. A. Norval, C. Knop, and F. Venegas: The crying of newly born babies. IV. A follow-up study after additional nursing care had been provided. *J. Pediat.,* 1946, **28,** 665–670.
2. Altus, W. D.: Birth order and mean scores on a ten-item aptitude test. *Psychol. Rep.,* 1965, **16,** 956.
3. Alvy, K. T.: Relation of age to children's egocentric and cooperative communications. *J. genet. Psychol.,* 1968, **112,** 275–286.
4. Ames, L. B., and F. L. Ilg: The developmental point of view with special reference to the principle of reciprocal neuromotor interweaving. *J. genet. Psychol.,* 1964, **105,** 195–209.
5. Anisfeld, E., and W. E. Lambert: Evaluation reactions of bilingual and monolingual children to spoken language. *J. abnorm. soc. Psychol.,* 1964, **69,** 89–97.
6. Asher, J. J., and R. Garcia: The optimal age to learn a foreign language. *Modern Language J.,* 1969, **53,** 334–341.
7. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders, 1966.
8. Bankson, N. W., and M. C. Byrne: The relationship between missing teeth and selected consonant sounds. *J. speech hear. Disord.,* 1962, **27,** 341–348.
9. Baratz, J. C.: A bi-dialectal task for determining language proficiency in economically disadvantaged Negro children. *Child Develpm.,* 1969, **40,** 889–901.
10. Bellugi, U., and R. Brown: The acquisition of language. *Monogr. Soc. Res. Child Develpm.,* 1964, **29,** no. 1.
11. Bereiter, C.: Fluency abilities in preschool children. *J. genet. Psychol.,* 1961, **98,** 47–48.
12. Berlyne, D. E., and F. D. Frommer: Some determinants of the incidence and content of children's questions. *Child Develpm.,* 1966, **37,** 177–189.
13. Berry, M. F.: *Language disorders of children: Their bases and diagnosis.* New York: Appleton-Century-Crofts, 1969.
14. Bloodstein, O.: *A handbook on stuttering.* Chicago: Nat. Easter Seal Soc. for Crippled Children and Adults, 1969.
15. Bluemel, C. S.: If a child stammers. *Ment. Hyg., N. Y.:* 1959, **43,** 390–393.
16. Braine, M. D. S.: The ontogeny of English phase structure: The first phase. *Language,* 1963, **39,** 1–13.
17. Breckenridge, M. E., and E. L. Vincent: *Child development,* 5th

ed. Philadelphia: Saunders, 1965.

18. Brottman, M. A.: Language remediation for the disadvantaged preschool child. *Monogr. Soc. Res. Child Develpm.*, 1968, **33,** no. 8.

19. Brown, R., and J. Berko: Word association and the acquisition of grammar. *Child Develpm.*, 1960, **31,** 1–14.

20. Cameron, J., N. Livson, and N. Bayley: Infant vocalizations and their relationship to mature intelligence. *Science*, 1967, **157,** 331–333.

21. Canter, G. J., and J. E. Trost: The speech handicapped. *Rev. educ. Res.*, 1966, **36,** 56–74.

22. Carlson, P., and M. Anisfeld: Some observations of the linguistic competence of a two-year-old child. *Child Develpm.*, 1969, **40,** 569–575.

23. Carrow, Sister M. A.: The development of auditory comprehension of language structure in children. *J. speech hear. Disord.*, 1968, **33,** 99–111.

24. Cazden, C. B.: The acquisition of noun and verb inflections. *Child Develpm.*, 1968, **39,** 433–448.

25. Clark, D. C.: Similarity between children's and adults' adjective responses to noun stimuli. *J. verbal Learn. verbal Behav.*, 1968, **7,** 705–706.

26. Cohen, B. D., and J. F. Klein: Referent communication in school age children. *Child Develpm.*, 1968, **39,** 597–609.

27. Cohn, W.: On the language of lower-class children. *School Review*, 1959, **67,** 435–440.

28. Cook, M.: Anxiety, speech disturbances and speech rate. *Brit. J. soc. clin. Psychol.*, 1969, **8,** 13–21.

29. Cope, C. S.: Linguistic structure and personality development. *J. counsel. Psychol. Monogr.*, 1969, **16,** no. 5, 1–19.

30. Cruickshank, W. M., and G. O. Johnson: *Education of exceptional children and youth*, 2d ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

31. Dales, R. J.: Motor and language development of twins during the first three years. *J. genet. Psychol.*, 1969, **114,** 263–271.

32. deHirsch, K.: Review of early language development. *Develpm. Med. child Neurol.*, 1970, **12,** 87–97.

33. Deutsch, M.: The role of social class in language development and cognition. *Amer. J. Orthopsychiat.*, 1965, **35,** 78–88.

34. Donaldson, M., and G. Balfour: Less is more: A study of language comprehension in children. *Brit. J. Psychol.*, 1968, **59,** 461–471.

35. Dreger, R. M.: Spontaneous conversation and story-telling of children in a naturalistic setting. *J. Psychol.*, 1955, **40,** 163–180.

36. Dreher, B. B.: Adults' reconstruction of the form and content of children's speech. *Speech Monogr.*, 1968, **35,** 470–475.

37. Duncan, S.: Nonverbal communication. *Psychol. Bull.*, 1969, **72,** 118–137.

38. Eisenberg, L., C. I. Berlin, A. Dill, and S. Frank: Class and race effects on the intelligibility of monosyllables. *Child Develpm.*, 1968, **39,** 1077–1089.

39. Elliott, F.: Shy middle-graders. *Elem. Sch. J.*, 1968, **69,** 296–300.

40. Ellis, D. S.: Speech and social status in America. *Soc. Forces*, 1967, **45,** 431–437.

41. Entwisle, D. R.: Subcultural differences in children's language development. *Int. J. Psychol.*, 1968, **3,** 13–22.

42. Ervin, S. M., and W. R. Miller: Language development. 62nd *Yearb. nat. Soc. Stud. Educ.*, 1963, part 1, 108–143.

43. Felzen, E., and M. Anisfeld: Semantic and phonetic relations in the false recognition of words by third and sixth grade children. *Develpm. Psychol.*, 1970, **3,** 163–168.

44. Fodor, E. M.: The influence of a program of reading on children's language development. *J. commun. Disord.*, 1968, **1,** 246–252.

45. Fransella, F.: Self-concepts and the stutterer. *Brit. J. Psychiat.*, 1968, **114,** 1531–1535.

46. Fry, C. L.: Training children to communicate to listeners. *Child Develpm.*, 1966, **37,** 675–685.

47. Garrison, K. C.: *Growth and development*, 2d ed. New York: Longmans, 1959.

48. Gesell, A.: The ontogenesis of infant behavior. In L. Carmichael (ed.): *Manual of child psychology*, 2d ed. New York: Wiley, 1954, pp. 335–373.

49. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.

50. Glucksberg, S., and R. M. Krauss: What do people say after they have learned to talk? Studies of the development of referential communication. *Merrill-Palmer Quart.*, 1967, **13,** 309–316.

51. Grosser, G. S., and W. J. Laczek: Prior parochial vs. secular secondary education and utterance latencies to taboo words. *J. Psychol.*, 1963, **55,** 263–277.

52. Hall, J. W.: Word recognition by children of two age levels. *J. educ. Psychol.*, 1968, **59,** 420–424.

53. Herriott, P.: The comprehension of tense by young children. *Child Develpm.*, 1969, **40,** 103–110.

54. Huffine, C. L.: Inter-socioeconomic class language differences: A research report. *Sociol. soc. Res.* 1966, **50,** 351–355.

55. Hunt, K. W.: Syntactic maturity in school children and adults. *Monogr. Soc. Res. Child Develpm.*, 1970, **35,** no. 1.

56. Irwin, O. C.: Infant speech: Effect of systematic reading of stories. *J. speech hear. Res.*, 1960, **3,** 187–190.

57. Iverson, M. A.: Attraction toward flatterers of different statuses. *J. soc. Psychol.*, 1968, **74,** 181–187.

58. Jensen, J. V.: Effects of childhood bilingualism. *Elem. English*, 1962, **39,** 132–143, 358–366.

59. Karelitz, S., V. R. Fisichelli, J. Costa, R. Karelitz, and L. Rosenfeld: Relation of crying activity in early infancy to speech and intellectual development at age three years. *Child Develpm.*, 1964, **35,** 769–777.

60. Keppel, G.: Verbal language in children. *Psychol. Bull.*, 1964, **61,** 63–80.

61. Kohlberg, L., J. Yaeger, and E. Hjertholim: Private speech: Four studies and a review of theories. *Child Develpm.*, 1968, **39,** 691–736.

62. Kolers, P. A.: Reading and talking bilingually. *Amer. J. Psychol.*, 1966, **79,** 357–376.

63. Krauss, R. M., and S. Glucksberg: The development of communication: Competence as a function of age. *Child Develpm.*, 1969. **40,** 255–266.

64. Krippner, S.: Upper- and lower-class children's sentence completions and speech improvement. *J. clin. Psychol.*, 1965, **21,** 335–337.

65. Lakin, M.: Personality factors in mothers of excessively crying (colicky) children. *Monogr. Soc. Res. Child Develpm.*, 1957, **22,** no. 1.

66. Lambert, W. E., H. Frankel, and G. R. Tucker: Judging personality through speech: A French-Canadian example. *J. Commun.*, 1966, **16,** 305–321.

67. Landreth, C.: *Early childhood: Behavior and learning,* rev. ed. New York: Knopf, 1967.

68. Lay, C. H., and B. F. Burron: Perception of the personality of the hesitant speaker. *Percept. mot. Skills,* 1968, **26,** 951–956.

69. Lenneberg, E. H.: On explaining language. *Science,* 1969, **164,** 635–643.

70. Lerea, L., and B. Ward: Speech avoidance among children with oral-communication defects. *J. Psychol.*, 1965, **60,** 265–270.

71. Linn, G. B.: Linguistic functions of bilingual Mexican-American children. *J. genet. Psychol.*, 1967, **111,** 183–196.

72. Lipsitt, L. P.: Learning processes of human newborns. *Merrill-Palmer Quart.*, 1966, **12,** 45–71.

73. Lovell, K.: Some recent studies in cognitive and language development. *Merrill-Palmer Quart.*, 1968, **14,** 123–138.

74. Lynip, A. W.: The use of magnetic devices in the collection and analysis of the preverbal utterances of an infant. *Genet. Psychol. Monogr.*, 1951, **44,** 221–262.

75. Marge, M.: A factor analysis of oral communication skills in older children. *J. speech hear. Res.*, 1964, **7,** 31–46.

76. Markel, N. N., R. M. Eisler, and H. W. Reese: Judging personality from dialect. *J. verbal Learn. verbal Behav.*, 1967, **6,** 33–35.

77. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.*, 1961, **75,** no. 5.

78. McCarthy, D.: Research in language development: Retrospect and prospect. *Monogr. Soc. Res. Child Develpm.*, 1959, **26,** no. 5, 3–24.

79. McClure, R. F.: Reinforcement of verbal social behavior in moderately retarded children. *Psychol. Rep.*, 1968, **23,** 371–376.

80. McNeill, D.: The development of language. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1061–1161.

81. Mehrabian, A.: Measures of vocabulary and grammatical skills for children up to age six. *Develpm. Psychol.*, 1970, **2,** 439–446.

82. Menyuk, P.: Children's learning and reproduction of grammatical and nongrammatical phonological sequences. *Child Develpm.*, 1968, **39,** 849–859.

83. Michael, G., and F. N. Willis: The development of gestures as a function of social class, education and sex. *Psychol. Rec.*, 1968, **18,** 515–519.

84. Mickelson, N. I., and C. G. Galloway: Cumulative language deficit among Indian children. *Except. Children,* 1969, **36,** 187–190.

85. Miller, W., and S. Ervin: The development of grammar in child language. *Monogr. Soc. Res. Child Develpm.*, 1964, **29,** no. 1, 9–42.

86. Mysak, E. D.: Organismic development of oral language. *J. speech hear. Disord.*, 1971, **26,** 377–384.

87. *New York Times* Report: Researchers find people's glances tell whole story. *The New York Times,* May 20, 1970.

88. Osser, H., M. D. Wang, and F. Zaid: The young child's ability to imitate and comprehend speech: A comparison of two subcultural groups. *Child Develpm.*, 1969, **40,** 1063–1075.

89. Palmer, R. J., and J. Masling: Vocabulary for skin color in Negro and white children. *Develpm. Psychol.*, 1969, **1,** 396–401.

90. Peisach, E. C.: Children's comprehension of teacher and peer speech. *Child Develpm.*, 1965, **36,** 467–480.

91. Pedersen, D. M., and V. J. Breglio: Personality correlates of actual self-disclosure. *Psychol. Rep.*, 1968, **22,** 495–501.

92. Penny, R.: Age and sex differences in motivational orientation to the communicative act. *Child Develpm.*, 1958, **29,** 163–171.

93. Raph, J. B.: Language and speech deficits in culturally deprived children: Implications for the speech clinician. *J. speech hear. Disord.*, 1967, **32,** 203–214.

94. Rheingold, H. L., and J. L. Gewirtz: *The conditioning of vocalization in infants using an adult's social response as a reinforcer.* Bethesda, Md.: Nat. Instit. Ment. Health Laboratory of Psychology, 1957.

95. Riegel, K. F.: Some theoretical considerations of bilingual development. *Psychol. Bull.*, 1968, **70,** 647–670.

96. Rosenzweig, S.: Babies are taught to cry: An hypothesis. *Ment. Hyg., N. Y.*, 1954, **38,** 81–84.

97. Routh, D. K.: Conditioning of vocal response differentiation in infants. *Develpm. Psychol.*, 1969, **1,** 219–226.

98. Rubin, K. H., D. F. Hultsch, and D. L. Peters: Non-social speech in four-year-old children as a function of birth order and interpersonal situation. *Merrill-Palmer Quart.*, 1971, **17,** 41–50.

99. Russell, D. H., and L. Q. Saadeh: Qualitative levels in children's vocabularies. *J. educ. Psychol.*, 1962, **53,** 170–174.

100. Sander, E. K.: Interrelations among the responses of mothers to a child's disfluencies. *Speech Monogr.*, 1968, **35,** 187–189.

101. Schwartz, S., C. Deutsch, and A. Weissmann: Language development in two groups of socially disadvantaged young children. *Psychol. Rep.*, 1967, **21,** 169–178.

102. Schwebel, A. I.: Effects of impulsivity on performance of verbal tasks in middle- and lower-class children. *Amer. J. Orthopsychiat.*, 1966, **36,** 13–21.

103. Shelton, R. L., W. B. Arndt, and J. B. Miller: Learning principles and teaching of speech language. *J. speech hear. Disord.*, 1961, **26,** 368–370.

104. Shriner, T. H.: A review of mean length of response as a measure of expressive language development in children. *J. speech hear. Disord.*, 1969, **34**, 61–68.

105. Silverman, E. M., and D. E. Williams: A comparison of stuttering and nonstuttering children in terms of five measures of oral-language development. *J. commun. Disord.*, 1966, **1**, 305–309.

106. Smedley, D. A.: Language and social class among grammar school children. *Brit. J. educ. Psychol.*, 1969, **39**, 95–96.

107. Smith, M. E., and L. M. Kasdon: Progress in the use of English after twenty years by children of Filipino and Japanese ancestry in Hawaii. *J. genet. Psychol.*, 1961, **99**, 129–138.

108. Snow, K.: Articulation proficiency in relation to certain dental abnormalities. *J. speech hear. Disord.*, 1961, **26**, 209–212.

109. Soffietti, J. P.: Bilingualism and biculturalism. *J. educ. Psychol.*, 1955, **46**, 222–227.

110. Solomon, A. L.: Personality and behavior patterns of children with functional defects of articulation. *Child Develpm.*, 1961, **32**, 731–737.

111. Staats, A. W., and C. K. Staats: A comparison of the development of speech and reading behavior with implications for research. *Child Develpm.*, 1962, **33**, 831–846.

112. Stack, J.: Early language development and use. *J. commun. Disord.*, 1969, **2**, 48–56.

113. Stewart, A. H., I. H. Weiland, A. R. Leider, C. A. Mangham, T. H. Holmes, and H. S. Ripley: Excessive infant crying (colic) in relation to parental behavior. *Amer. J. Psychiat.*, 1954, **110**, 687–694.

114. Strongman, K. T., and J. Woosley: Stereotyped reactions to regional accents. *Brit. J. soc. clin. Psychol.*, 1967, **6**, 164–167.

115. Templin, M.: Certain language skills in children: Their development and interrelationships. *Univer. Minnesota Child Welf. Monogr.*, 1957, no. 26.

116. Terman, L. M., and M. A. Merrill: *Stanford-Binet Intelligence Scale.* Boston: Houghton Mifflin, 1960.

117. Thompson, D. F., and L. Meltzer: Communication of emotional intent by facial expression. *J. abnorm. soc. Psychol.*, 1964, **68**, 129–135.

118. Thompson, G. G.: *Child psychology*, rev. ed. Boston: Houghton Mifflin, 1962.

119. Todd, G. A., and B. Palmer: Social reinforcement of infant babbling. *Child Develpm.*, 1968, **39**, 591–596.

120. Vondracek, S. I., and F. W. Vonderacek: The manifestation and measurement of self-disclosure in preadolescents. *Merrill-Palmer Quart.*, 1971, **17**, 51–58.

121. Webster, R. L.: Selective suppression of infants' vocal responses by classes of phonemic stimulation. *Develpm. Psychol.*, 1969, **1**, 410–414.

122. Weiland, I. H., A. R. Leider, and C. A. Maughan: A psychiatric study of mothers of excessively crying infants. *Psychiat. Quart.*, 1957, **31**, 508–520.

123. Weisberg, P.: Social and unsocial conditioning of infant vocalization. *Child Develpm.*, 1963, **34**, 377–384.

124. Williams, D. E., and F. H. Silverman: Note concerning articulation of school-age stutterers. *Percept. mot. Skills*, 1968, **27**, 713–714.

125. Williams, F., and J. Tolch: Communication by facial expression. *J. Communic.*, 1965, **15**, 17–27.

126. Wolman, R. N., and E. N. Barker: A developmental study of word definitions. *J. genet. Psychol.*, 1965, **107**, 159–166.

127. Worster-Drought, C.: Speech disorders in children. *Develpm. Med. child Neurol.*, 1968, **10**, 427–440.

128. Yamamato, K.: Development of ability to ask questions under specific testing conditions. *J. genet. Psychol.*, 1962, **101**, 83–90.

129. Yeni-Komshian, G., R. A. Chase, and R. L. Mobley: The development of auditory feedback monitoring. II. Delayed auditory feedback studies of the speech of children between two and three years of age. *J. speech hear. Disord.*, 1968, **11**, 307–315.

130. Zigler, E., L. V. Jones, and P. Kafes: Acquisition of language habits in first, second, and third grade boys. *Child Develpm.*, 1964, **35**, 725–736.

DAVIDSON—MAGNUM

CHAPTER NINE Emotional Development

THE TRADITIONAL BELIEF that a happy, carefree childhood is essential to a well-adjusted adulthood was referred to in Chapter 1. This belief implies that all unpleasant emotions should be kept to a minimum. Acceptance of the belief leads parents and even teachers to try to make childhood as happy a period as possible.

Three fallacies mar this traditional belief. *First,* there is no scientific evidence that only well-adjusted adults have had happy childhoods. Nor is there evidence that happy children continue to be happy when they grow up regardless of the circumstances of their lives.

Second, it is a fallacy to claim that the only way to be happy is to be carefree. Studies of happiness have definitely not confirmed this belief. If anything, they have refuted it by showing that children who have no responsibilities are bored and feel inadequate. Such children come to believe that their parents and teachers lack confidence in them.

Third, the implication that all unpleasant emotions should be kept to a minimum by careful control over the child's environment is fallacious because it is based on the assumption that such emotions as fear, anger, jealousy, and grief have no value at all. While it is true that these emotions militate against happiness, they are damaging only if they become so habitual that they dominate a person's life.

Some parents, accepting the traditional belief that a healthy child is a happy child, put so much emphasis on the child's physical well-being that they neglect his psychological well-being. They fail to recognize, for example, that a child cannot know that his parents love and respect him as an individual unless they show it in words and actions. The child's reasoning capacity is too limited to allow him to see that behind their criticism and punishment is a parental love that is overshadowed by their desire to conform to their concept of "good parents." Consequently, in spite of all they do to guarantee that he will be healthy, he still is not happy or well adjusted.

Importance of Children's Emotions

Studies of the emotions have revealed that *all* emotions—not just the pleasant ones—play an important role in life and that each contributes to the kind of personal and social adjustment the individual makes. Only if the emotions are directed into wholesome patterns of expression, however, will they lead to good adjustments. This requires learning under the guidance of persons experienced enough to know which forms of expression will lead to good adjustments and which to poor. The benefits or damages may be physical or psychological or both.

Emotions Add Pleasure to Everyday Experiences. Even such emotions as anger and fear add pleasure to the child's life by giving him some excitement, but mainly their enjoyment comes from their pleasant aftereffects. More obvious pleasure comes from such emotions as curiosity, affection, and joy. Physically, joy is one of nature's best medicines because it dispels tensions and relaxes the body. Psychologically, it is a wholesome emotion because it makes all experiences pleasant.

Emotions Prepare the Body for Action. Physiological accompaniments of the emotions—increased heartbeat, removal of fatigue poisons from the muscles, stopping of digestion, and release of blood sugar from the liver, thyroxin from the thyroid glands, and adrenin from the adrenal glands—prepare the body for action. If this preparation for action is not needed, it will cause the child to be nervous and edgy or will lead to such nervous mannerisms as nail-biting and thumb-sucking.

Emotional Tension Disrupts Motor Skills. Bodily preparation for action produces increased strength, energy, and endurance, but it plays havoc with skilled movements, causing the child to be clumsy and awkward and leading to such speech disorders as slurring and stuttering.

Emotions Serve as a Form of Communication. Through the bodily and facial changes that accompany all emotions, the child can communicate to others how he feels. Also, he can determine how they feel from their bodily and facial changes. For a child whose comprehension and use vocabularies are limited, the emotions serve as an important medium of communication.

Emotions Interfere with Mental Activities. Concentration, learning, recall, reasoning, and other mental activities are adversely affected by the unpleasant emotions. As a result, the child performs below his intellectual capacities when he is emotionally disturbed. If he suffers from persistent anxiety, frustration, jealousy, or grief, he may become an academic underachiever.

Emotions Are Sources of Social and Self Evaluations. People evaluate a child in terms of his dominant emotions and how he expresses those emotions, whether in a mature, socially acceptable way or the opposite. Their treatment of him serves as the basis for his evaluation of himself.

Emotions Color the Child's Outlook on Life. How the child views his role in life and his position in the social group is markedly influenced by whether he is frightened, curious, or happy. If he is embarrassed or shy, for example, he will feel ill at ease and make poor social adjustments.

Emotions Affect Social Interaction. Even unpleasant emotions, such as anger and jealousy, encourage social interaction. From them, the child learns how to modify his behavior so as to conform to social standards and expectations. Affection, happiness, and joy encourage pleasant social interaction and serve as important socializing experiences.

Emotional Responses, When Repeated, Develop into Habits. Any emotional expression that gives the child satisfaction will be repeated and, in time, develop into a habit. The child who discovers that temper tantrums are a quick and easy way to get what he wants, for example, will develop the habit of flying off the handle whenever he is opposed. By the time he reaches adulthood, the habit, unless replaced by more socially acceptable ways of meeting frustrations, will be so firmly established that uprooting it will be difficult if not impossible.

Emotions Leave Their Mark on the Facial Expression. Pleasant emotions improve the child's looks. Curiosity leads to an expression of alertness, and joy to an expression of contentment. Unpleasant emotions distort the face and make the child appear homelier than he actually is. Because people are attracted or repelled by facial expressions, the emotions play an important role in social experiences.

Emotions Affect the Psychological Climate. In the home, the school, the neighborhood, and the play group, the child's emotions affect the psychological climate of the environment and it affects him. The child's temper tantrums irritate his parents and annoy his siblings. This charges the emotional climate of the home with anger and resentment, which make the child feel unloved and unwanted.

Emotional Deprivation

Studies of emotional deprivation have highlighted the significance of emotions in the child's life. The "emotionally starved" child does not develop normally either physically or mentally. In addition, his personal and social adjustments are distorted. The damages of emotional deprivation, however, are influenced by when it occurs, how long it persists, the emotion of which the child is deprived, and numerous other factors.

MEANING OF EMOTIONAL DEPRIVATION

Emotional deprivation does not mean that the child is deprived of *all* emotional experiences. Such total deprivation would be impossible. Instead, it means that he is deprived of a reasonable share of pleasant emotional experiences, especially curiosity, joy, happiness, and affection. Most children grow up in environments that provide an abundance of unpleasant emotional experiences—anger, fear, jealousy, and envy.

In its narrowest sense, emotional deprivation refers to deprivation of affection. This in turn denies almost all opportunities for joy, happiness, and perhaps, curiosity. A child who grows up under these conditions is emotionally starved.

The child who is deprived of opportunities to experience affection is seriously damaged. He is denied the ego-satisfying experience that being loved by others provides. And he is denied the intimate social relations which affection and love encourage.

Causes of Deprivation of Affection. If everybody loves a baby, how can it be deprived of affection? There are many explanations. A baby or young child may be institutionalized, or he may be deprived through the death of one or both of his parents. Even when a child lives with his parents, he may be deprived of affection because of their rejection or neglect or because they believe that showing affection will spoil him.

Deprivation of affection may, on the other hand, result from a child's rejection of his parents because they do not meet his needs or because he is ashamed of them. Under such conditions, the parent has little influence over the child and cannot supply him with affection. Children who are unpopular with their peers and whose parents do not find them "satisfactory" are deprived of the two most important sources of emotional satisfaction and security.

Effects of Deprivation of Affection. Of the many areas of development which are likely to be damaged by deprivation of affection, the following are the most common.

First, babies deprived of affection suffer a delay in normal physical development. Specific effects include listlessness, emaciation, quietness, general apathy, loss of appetite, and psychosomatic illnesses.

Second, motor development, as shown in sitting, standing, and walking, is usually delayed, and the young child is thus more clumsy and awkward than his age-mates.

Third, speech development is delayed; the child often develops a speech disorder such as stuttering.

Fourth, intellectual development is delayed. The child is unable to concentrate and is easily distracted. This interferes with learning, recall, and reasoning.

Fifth, children deprived of love are handicapped in learning how to get along with people. They respond negatively to the advances of others, tending to be uncooperative and hostile. They feel inadequate and show their resentment in aggressiveness, disobedience, and other forms of asocial behavior.

Sixth, the unfavorable emotional and social reactions resulting from deprivation of affection leave their mark on the child's developing personality. The emotionally starved child is self-bound; he shows little interest in others and is selfish and demanding.

Many factors influence the way the child is affected by emotional deprivation. For a summary of these

Box 9–1

FACTORS THAT INFLUENCE THE EFFECTS OF DEPRIVATION OF AFFECTION

Degree of Deprivation

A slight frustration of the child's desire for affection whets his desire for it. For example, when a child must compete with siblings for the mother's attention he becomes friendly and eager to please. Pronounced deprivation of affection leads to many of the serious effects reported in the text.

When the Deprivation Occurs

The critical period for deprivation of affection is from 6 months to 5 years of age. Deprivation after 5 years has minor effects because the child can find substitute satisfactions. Before that time, it has little effect because an emotional attachment was never firmly established.

Person from Whom the Child Is Separated

After becoming accustomed to the care and love of the mother or mother surrogate, a baby or young child cannot comprehend the sudden withdrawal—even temporarily—of this source of emotional security. As a result, he feels unwanted, unloved, and rejected.

Extent of Separation

When young children are separated from the mother or mother substitute for a long time, the effects are more serious than when the separation is temporary. If the deprivation lasts for less than 3 months, reestablishment of emotional interchange will lead to a resumption of normal physical and mental development.

Personality

Some children are dependent and crave more or less constant attention and affection while others can be happy with less. Self-bound children have less craving for affection than do those who are outer-bound.

Ordinal Position

Firstborn children, accustomed to constant attention and affection from the mother, are more damaged by emotional deprivation than are their later-born siblings.

Family Size

Children from large families are accustomed to fewer contacts with the mother and are less damaged by emotional deprivation than only children. Since children from large families are often cared for by mother substitutes, they do not become dependent on any one person for affection.

Satisfactory Substitute Source of Affection

Much of the psychological damage from emotional deprivation can be avoided if there is a satisfactory substitute for the child's original source of emotional satisfaction. In adoption, babies or young children soon adapt themselves to their substitute parents and make good adjustments.

factors, their effect on physical and psychological development, and whether their impact will be temporary or permanent, see Box 9–1.

LONG-TERM EFFECTS OF EMOTIONAL DEPRIVATION

While it was formerly believed that deprivation of sources of emotional satisfaction during the early years of life would automatically lay the foundations for adult personality disorders, there is evidence today that this may not be so (6, 118, 129). Some evidence suggests that conditions other than emotional deprivation per se may be responsible (9, 147). There is also evidence that the tendency to develop an "affectionless or psychopathic character" is often offset by favorable experiences later in childhood (25, 128, 129).

While deprivation of affection is not the only cause of maladjustments in adolescence and adulthood, it is an important contributing factor. It has been reported that maladjustments resulting directly or indirectly from deprivation of affection range from general unhappiness to antisocial behavior, psychopathic personality, psychoneuroses, or even certain forms of psychosis, such as schizophrenia. Emotional deprivation is likely to increase the tendency toward maladjustment when it is accompanied by other unfavorable conditions (61, 143).

Several examples will serve to illustrate how long-lasting the effects of deprivation of affection can be. Rebellion against authority in adolescence is often increased if the adolescent feels that he has never received the affection he craves. Teen-age marriages are often a means of satisfying a longing for affection and emotional security never completely satisfied by love from parents, siblings, or peers. Poor adjustment in marriage and at work and poor attitudes toward the law in adult life are likewise increased by feelings of insecurity engendered by deprivation of affection during the early years of childhood (6). Figure 9–1 shows how deprivation of paternal affection contributes to juvenile delinquency. Such deprivation may be due to the father's absence from the home or to "under-the-roof alienation."

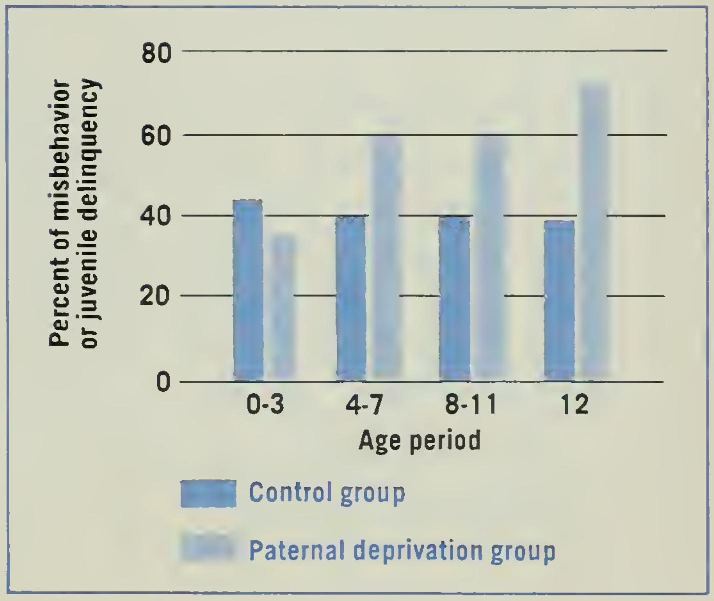
Pattern of Emotional Development

If parents and teachers are to help the child develop emotionally so that his emotions will be beneficial, they must know what the normal pattern of emotional development is. They must also understand how great a role maturation and learning play in emotional development. Genetic studies of children's emotions, covering varying spans of time, have yielded a great deal of specific information.

The ability to respond emotionally is present in the newborn infant. Consequently, it does not have to be learned (12). The first sign of emotional behavior is general excitement due to strong stimulation. This diffuse excitement is reflected in the newborn's mass activity. At birth, however, the infant shows no clear-cut responses that can be identified as specific emotional states (130).

Often before the period of the neonate is over, the general excitement of the newborn becomes differentiated into simple reactions that suggest pleasure and displeasure. *Unpleasant responses* can be elicited by abruptly changing the baby's position, making sudden loud noises, hampering the baby's movements, allowing the baby to wear wet diapers, and applying cold objects to his skin. Such stimuli cause crying and mass activity. *Pleasant responses,* on the other hand, are apparent when the baby sucks. They can also be elicited by rocking, patting, providing warmth, and holding the baby snugly. The baby shows his pleasure by a general relaxation of the entire body, not, as he will later, by smiling, cooing, or laughing (12).

Figure 9–1. Deprivation of the father's affection often predisposes boys to misbehavior or even juvenile delinquency. (Adapted from R. E. Anderson, Where's Dad? Paternal deprivation and delinquency, Arch. gen. Psychiat., *1968,* **18**, *641–649. Used by permission.)*



Even before the baby is a year old, his emotional expressions are recognizably similar to those of adults. He displays an increasing repertoire of emotional responses—*joy, anger, fear, jealousy, happiness, curiosity,* and *envy.* These responses can be aroused by a wide range of stimuli, including people, objects, and situations which in the younger infant were ineffective (13).

As the child grows older, his emotional responses become less diffuse, random, and undifferentiated. The baby shows displeasure merely by screaming and crying. Later, his reactions include resisting, throwing things, stiffening his body, throwing back his body, running away, hiding, and verbalizing. With increasing age, linguistic responses increase and motor responses decrease.

The regularity of the pattern of emotional development suggests that emotions are largely a product of heredity. Differences in health and environment, however, produce individual variations in the frequency, intensity, and duration of the different emotions. Early patterns of emotional behavior tend to persist unless the child experiences radical changes in health, environment, or personal-social relationships.

How the Emotions Develop

Emotions are present at birth, but emotional development is due to *maturation* and *learning,* not to either alone. That a certain emotional reaction does not appear early in life is no proof that it is not innate. It may develop later with the maturing of the brain or the endocrine system. Learning and maturation are so closely interwoven in the development of emotions that at times it is difficult to determine their relative effects.

ROLE OF MATURATION

Intellectual development results in an ability to perceive meanings not previously perceived, to attend to one stimulus for a longer time, and to concentrate emotional tension on one object. The growth of imagination and understanding and the increase in ability to remember and anticipate likewise affect emotional reactions. Thus the child becomes responsive to stimuli to which he was impervious at an earlier age.

Development of the endocrine glands is essential to mature emotional behavior (115). The baby is relatively lacking in the endocrine products that sustain some of the physiological response to stress. The adrenal glands, which play a dominant role in the emotions, show a sharp decrease in size soon after birth. Shortly later they begin to grow; they gain rapidly up to 5 years, slowly from 5 to 11, and more rapidly up to 16 years, by which time they have regained their birth size. Until their size has increased, little adrenin is produced and secreted. The influence on the emotional states in childhood is marked (23, 69, 70).

ROLE OF LEARNING

In general, three kinds of learning contribute to the development of emotional patterns during childhood. These are trial-and-error learning, learning by imitation, and conditioning.

In all three, the child must be maturationally ready before learning can take place. The newborn infant, for example, is incapable of expressing anger except by crying. With maturation of the nervous system and muscles, he develops the potential for many differentiated reactions, but his learning experiences will determine which of the reactions he will actually employ to express his anger.

The following paragraphs explain the role of these three types of learning in the development of emotional patterns.

Trial-and-Error Learning. Trial-and-error learning is based on past experiences. It affects mainly the response aspect of the emotional pattern. The child learns in a trial-and-error fashion to express his emotions in the ways that give him the greatest satisfaction. If he has learned that temper tantrums serve his needs best when he is angry, he will continue to use temper tantrums to get what he wants. But if he learns that adults or peers regard temper outbursts as infantile, he will try to discover some other means of expressing his anger that will achieve his end and at the same time win social approval.

Learning to express emotions through trial-and-error is more common in early childhood than later. When it will be abandoned or replaced by more efficient learning techniques will depend largely on when guidance is given and how effective the guidance is.

Imitation. Emotional reactions to specific situations and methods of expressing emotions are often learned by observing others. Learning by imitation affects both the stimulus and response aspects of the emotional pattern. When the *stimulus* aspect is affected, the child imitates the emotional behavior of others; he responds in an emotional manner to situations that at one time were incapable of eliciting emotional responses from him.

Emotions are "contagious" in that they spread from person to person through imitation. One child may become angry at a teacher because of some imagined mistreatment. The stimulus for the anger—the imagined mistreatment—affects the whole class and soon all the child's friends, imitating his behavior, also become angry whenever the stimulus is presented. On the other hand, if the children become quiet and relaxed when the teacher reads a story to them, a child who is anxious and fearful may learn through imitation to be calm when this stimulus is presented.

Emotional contagion also affects the *response* aspect of the emotional pattern. A child who is unhappy and expresses this emotion by complaining about anything and everything at school may set a pattern which other unhappy children imitate. Such a response could destroy the morale of the entire classroom. The expression of happiness in cheerful, cooperative behavior is equally contagious.

At no age is emotional contagion completely lacking. It is most common in childhood, because the child is more suggestible than the older and more experienced person. The degree of emotional contagion, however, depends not so much upon age as upon the emotion itself, the dependency and suggestibility of the particular child, and the social acceptance of the child who sets the pattern for others to imitate. A highly dependent and suggestible child, for example, is more likely to imitate the emotional patterns of others than an age-mate who is more independent.

Conditioning. Objects and situations which at first fail to call forth emotional responses come to do so later as a result of conditioning, or learning by association. Conditioning is thus related to the stimulus aspect of the emotional pattern. Watson and Raynor's famous experiment on "Albert" demonstrated how a baby learns to be afraid. At 9 months of age, Albert was shown a large number of objects, including a sealskin coat, a rabbit, a dog, a monkey, a white rat, and some cotton wool. In no instance did he display fear. Later, he was conditioned to fear the rabbit in the following manner. The rabbit was presented to him, and at the moment that he reached for it a loud noise was sounded behind his head. He was startled, and fell forward on his face. The next time the loud noise and the rabbit were presented simultaneously, he whimpered. After six such presentations the rabbit was then presented alone. Albert cried, withdrew, and showed a typical fear response (152). How conditioning occurs is illustrated in Figure 9–2.

Conditioning is not limited to fear. Whether the child loves or fears, likes or dislikes, a person is determined largely by how that person treats him. A child may prefer his mother to his father because the mother is more understanding and punishes him less. Similarly, the child may show greater affection for one sibling because that sibling is always kind to him. He may dislike a sibling who teases or ignores him.

Conditioned emotions do not remain static. They *spread,* through stimulus generalization, to people, objects, and situations similar to those with which they have become associated. Watson and Raynor, carrying their experiment with Albert further, found that Albert's fear of the rabbit had spread to the rat, the dog, the sealskin coat, and the cotton wool, all of which he had seen and shown no fear of before the conditioning experiment was started.

Like fear, affection spreads to other people and things. A child who has an affectional relationship with his parents is better able to develop affection for others than the child whose family relationships are unsatisfactory.

Conditioning occurs easily and quickly during the early years of life because the young child lacks both the reasoning ability and the experience to assess a situation critically and to recognize how irrational many of his emotional responses are. Furthermore, imagination develops more rapidly than reasoning, and thus the child often exaggerates the meaning of a situation. He often, for example, imagines a fear-provoking situation to be more dangerous than it actually is.

IMPORTANCE OF MATURATION AND LEARNING

Both maturation and learning influence the development of the emotions, but learning is more important, primarily because it is controllable. Maturation is also somewhat controllable, but only by means that affect physical health and the maintenance of homeostasis, that is, through control of the glands whose secretions are triggered by the emotions.

In contrast, there are many ways to control what the child learns to respond to emotionally and how he learns to respond to it. Learning can be controlled by direct teaching and guidance, by regulation of the environment to guarantee that desirable emotional patterns will be established, and by physical therapy or psychotherapy to eliminate undesirable responses before they develop into well-established habits.

It has been found, for example, that environmental changes directly affect the child's emotions. A child who has been accustomed to having his mother's undivided attention may bitterly resent her preoccupation with a new baby and may express his anger and jealousy in frequent and intense emotional outbursts. These can be prevented by changing the environment to see that he gets a fair share of the mother's time. Through teaching and guidance he can be made to understand why there are times when a baby requires the mother's attention. And then, again by manipulation of the environment, he can be given extra attention when the mother has free time.

Control over the learning of emotional patterns is both a positive and a preventive measure. Once an undesirable response is learned and incorporated into the child's emotional pattern, it is not only likely to persist but to become increasingly difficult to change as the child grows older. With regard to children's preferences, which are the product of conditioning, Pratt states that a "childish dislike lasts longer than childhood" (126). This is also true of other emotional responses which, from genetic studies, have been shown to persist into the adult years (26, 28). That is why childhood may rightly be regarded as a "critical period" in emotional development.

Because of the influence of maturation and learning on emotional development, it is understandable that the emotions of young children differ markedly from those of older children and adults. Unless this is recognized, adults will tend to regard the young child's emotional reactions as "immature." Furthermore, it is illogical to expect *all* children of a given age to have similar emotional patterns. Individual differences are inevitable because of differences in maturational level and learning opportunities.

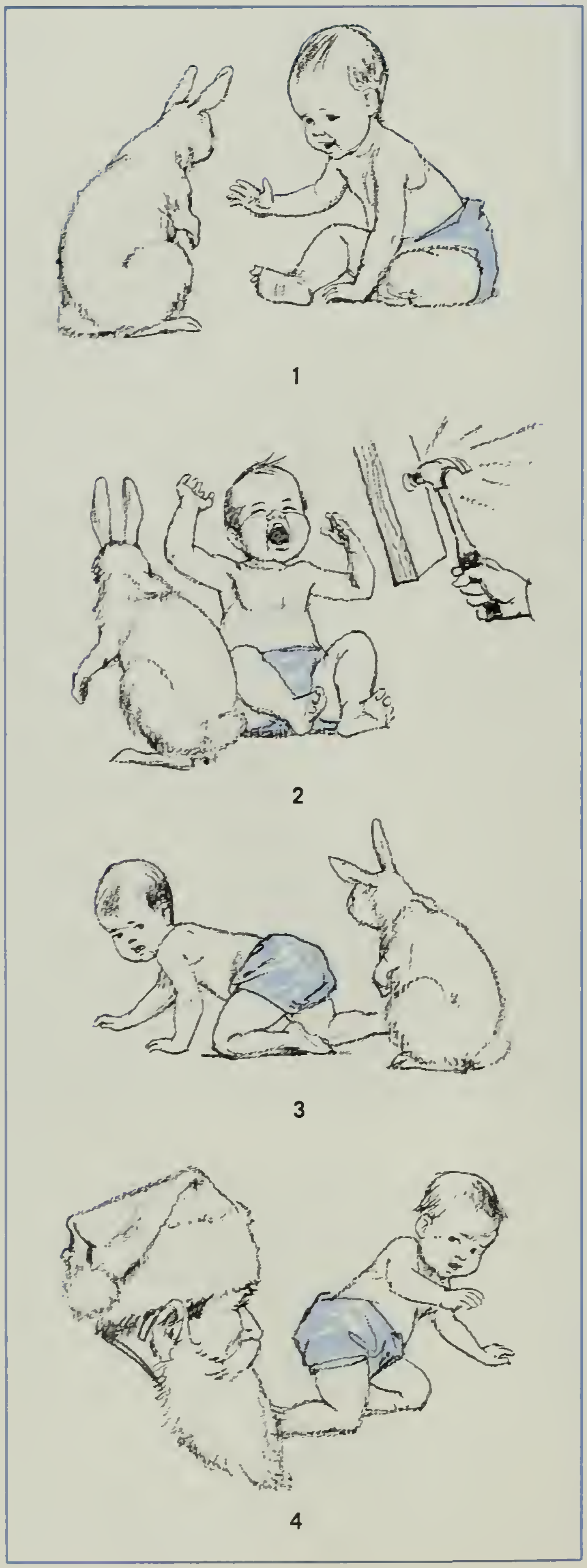


Figure 9–2. How emotions can be conditioned. (1) Infant's response to a rabbit before conditioning; (2) the unconditioned stimulus which was presented simultaneously with the rabbit on several occasions; (3) the infant's response to the rabbit after conditioning; and (4) the generalization of conditioning to a Santa Claus beard. (Adapted from G. G. Thompson: Child psychology, *rev. ed. Houghton Mifflin, 1962. Used by permission.)*

Regardless of individual differences, however, certain characteristic features of children's emotions make them different from those of older persons. These features are described in Box 9–2.

Common Emotional Patterns

After the early months of babyhood, differentiated emotional patterns emerge. The most common patterns, the stimuli which arouse them, and the typical responses of each pattern are discussed in the following sections.

FEAR

A baby or a young child is protected as much as possible from fear-provoking stimuli, but as his environment expands, he comes in contact with more and more things that are likely to frighten him. Also, as his intellectual development progresses, he perceives and imagines threats in objects, situations, or even people which formerly left him unperturbed. As a result, his fears not only are more numerous but are likely to be more intense.

Most fears are learned, but not all are learned in the same way. Some come from direct association of experiences with stimuli that naturally arouse fear, such as loud, harsh noises. Others are acquired through imitation; fear of thunderstorms, for example, is often learned by imitating the fear behavior of a parent or playmate. A third type of fear comes through conditioning as an aftermath of an unpleasant experience; fear of doctors, dentists, hospitals and large animals is often conditioned. Finally, fears may develop from frightening experiences depicted on radio or television and in movies, comic books, and fairy tales (39).

Typical Childhood Fears. Certain fears are characteristically found at certain ages and may, therefore, be called the "typical fears" for those age levels. There is no sudden shift from one kind of fear to another, however, but rather a gradual shift from specific fears to general ones (7, 77).

The most common fear-provoking stimuli in *babyhood* are loud noises, animals, dark rooms, high places, sudden displacement, being alone, pain, and strange persons, places, and objects. See Figure 9–3. *Young children* are afraid of more things than either the baby or the older child. From 2 to 6 years of age

Box 9–2

CHARACTERISTIC FEATURES OF CHILDREN'S EMOTIONS

Emotions Are Intense

The young child responds with equal intensity to a trivial event and to a serious situation. Even the preadolescent reacts with intense emotions to what appears, to an adult, to be a trivial frustration.

Emotions Appear Frequently

The child displays his emotions frequently. As he grows older and discovers that disapproval or punishment often follows an emotional outburst, he learns to adjust to emotion-arousing situations. He then curbs his outbursts or reacts in a more acceptable way.

Emotions Are Transitory

The young child's rapid shifts from laughter to tears, from anger to smiles, or from jealousy to affection are attributable to three factors: clearing the system of pent-up emotions by unreserved expressions; lack of complete understanding of the situation because of intellectual immaturity and limited experience; and short attention span, which makes it possible for the child to be diverted easily.

Responses Reflect Individuality

In all newborns, the pattern of response is similar. Gradually, as the influences of learning and environment are felt, the behavior accompanying the different emotions is individualized. One child will run out of the room when he is frightened, another will hide behind his mother, while another will stand his ground and cry.

Emotions Change in Strength

Emotions that are very strong at certain ages wane in strength as the child grows older, while others, formerly weak become stronger. These variations are due partly to changes in the strength of drives, partly to the child's intellectual development, and partly to changes in interests and values.

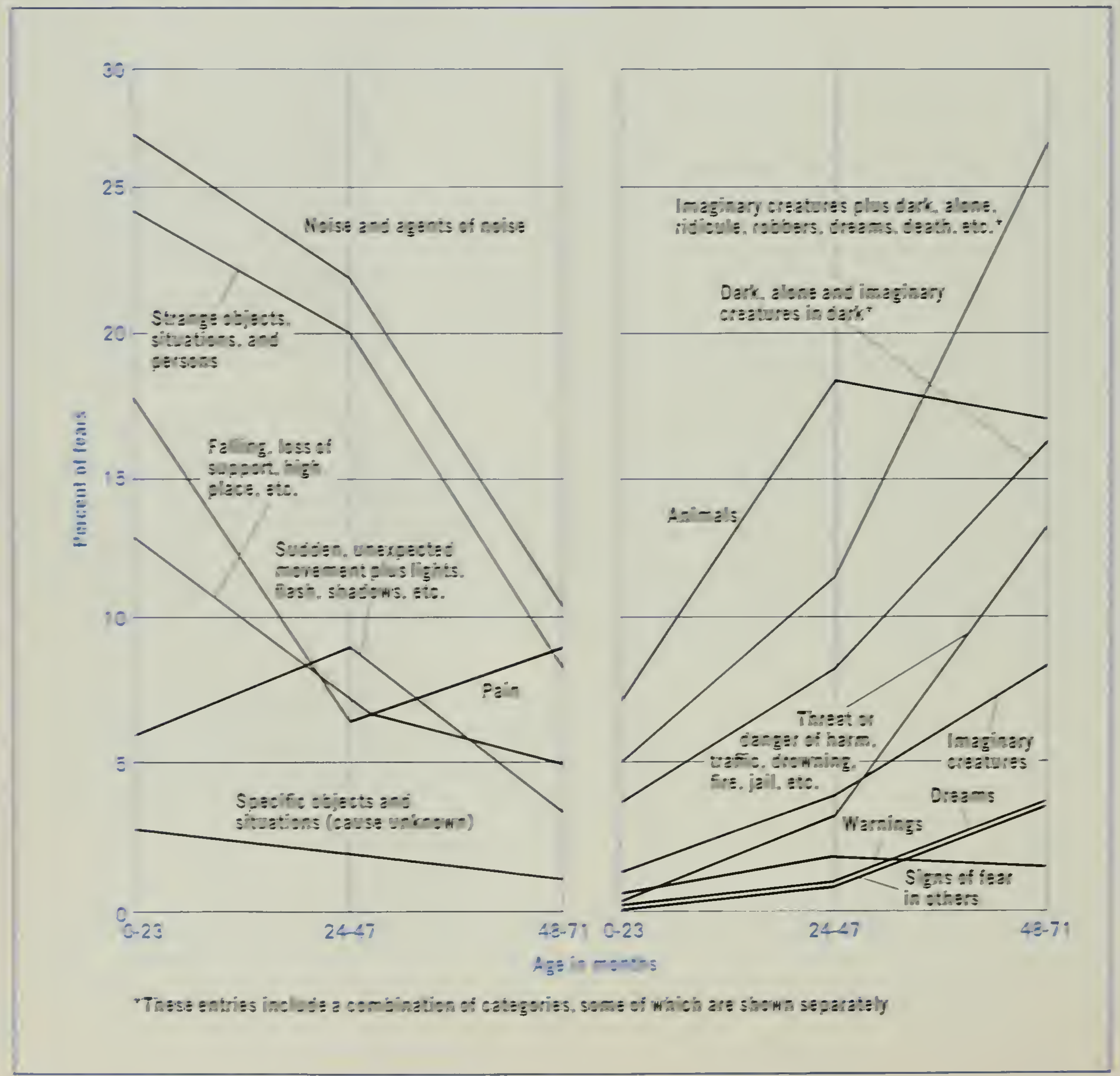
Emotions Can Be Detected by Behavior Symptoms

Children may not show their emotional reactions directly, but they show them indirectly by restlessness, daydreaming, crying, speech difficulties, and nervous mannerisms such as nail-biting and thumb-sucking.

is the peak period of specific fears in the normal pattern of development. The young child is more capable than the baby of recognizing dangers. His lack of experience, however, makes him less capable than the older child of realizing that they may not be personal threats.

Among older children, fears are concentrated on fanciful, supernatural, or remote dangers; on the dark and on imaginary creatures associated with the dark; on death or injury; on the elements, especially thunder and lightning; and on characters recalled from stories, movies, comics, and television. Older children have many fears related to self or status; they are afraid of failing, of being ridiculed, and of being "different."

Figure 9–3 Relative frequency of different fear situations among young children. (Adapted from A. T. Jersild. Emotional development. In L. Carmichael, Manual of child psychology. 2d ed. *Wiley, 1954, pp. 833–917. Used by permission.)*



Regardless of the child's age, an important characteristic of all fear stimuli is that they occur *suddenly* and *unexpectedly;* the child has little opportunity to adjust to them. Fear of strangers in a baby is due in part to his being accustomed to seeing a familiar face and being unable to adjust quickly to the sudden appearance of a stranger. As the child grows older and becomes more mature intellectually, he can adjust more quickly to sudden and unexpected circumstances. Many of the fears of older children fall under the headings of anxiety and worry, which are discussed later.

At every age, there are exceptions to the typical fears of childhood. These reflect differences in mental and physical development as well as in individual experiences which determine what children learn to fear and how they learn to express their fears. The chief causes of these variations are outlined in Box 9–3.

Individual differences in fear responses are even greater than the factors described in the box would seem to indicate. Fear does not depend simply on a given stimulus, but on the surrounding circumstances and the condition of the child at the time the stimulus occurs. To be able to predict whether a given child will show fear in a given situation, one must know the child's physiological and psychological condition at that time and the history of his fear reactions.

Fear Responses. In a child under 3 years of age, the fear response is typically one of helplessness. The cry is the baby's call for help. He hides his face and gets as far away from the feared object as he can. After he learns to creep or walk, he hides behind a person or a piece of furniture and remains there until the fear subsides or until he feels that it is safe to emerge.

As the child grows older, overt fear responses are curbed by social pressure. The crying reactions cease, though the characteristic facial expressions remain, and the child withdraws from the feared object.

Not only do older children check the impulse to show fear, but they try to keep away from a situation that they think will be frightening. If confronted with a fear stimulus, they may express their fear indirectly in a general motor discharge that is more like a temper outburst than a fear reaction. Figure 9–4 shows some of the typical fear responses in the older child.

Value of Fear. Fear is valuable to a child if it does not become too intense. "Normal" fear serves as a warning of danger. Unfortunately, most children learn

Box 9–3

FACTORS RESPONSIBLE FOR VARIATIONS IN CHILDREN'S FEARS

Intelligence

A precocious child has fears characteristic of an older group and a retarded child has fears characteristic of a younger. While most children of 3 years, for example, have fears that are situationally determined, a precocious 3-year-old will have generalized and imaginary fears. A precocious child usually has more fears than his average age-mates because he is more aware of the possibilities of danger.

Sex

At all ages, girls show more fears than boys. Also, it is more socially acceptable for girls to fear certain things, such as snakes and bugs.

Socioeconomic Status

Lower-class children at all ages have more fears than children from middle- and upper-class backgrounds. They are especially afraid of violence, which troubles middle- and upper-class children very little.

Physical Condition

If the child is tired, hungry, or in poor health he will respond with greater fear than normally and will be frightened in many situations which do not ordinarily excite his fear.

Social Contacts

Being with others who are frightened predisposes the child to be frightened also. As the number of individuals in the group increases, fears are shared and the total number of fears for each child increases.

Ordinal Position

Firstborns tend to have more fears than later-borns because they are subjected to greater parental overprotectiveness. The more younger siblings associate with older siblings, the more fears they learn.

Personality

Insecure children tend to be frightened more easily than children who are emotionally secure. The extrovert learns more fears by imitating others than the introvert.

to fear things that are not dangerous. Fear then inhibits action that might be useful or enjoyable.

Fear also serves as a means of communication. This is important for all children, but especially those whose language ability is limited. If a child perceives, from the facial and bodily changes of another child or an adult, that he is in a dangerous situation, this communicates to him the need to be careful. In addition, it tells him which of his age-mates are unduly fearful and which are brave—facts on which he makes his judgments of them and decides whether he wants them as playmates (89).

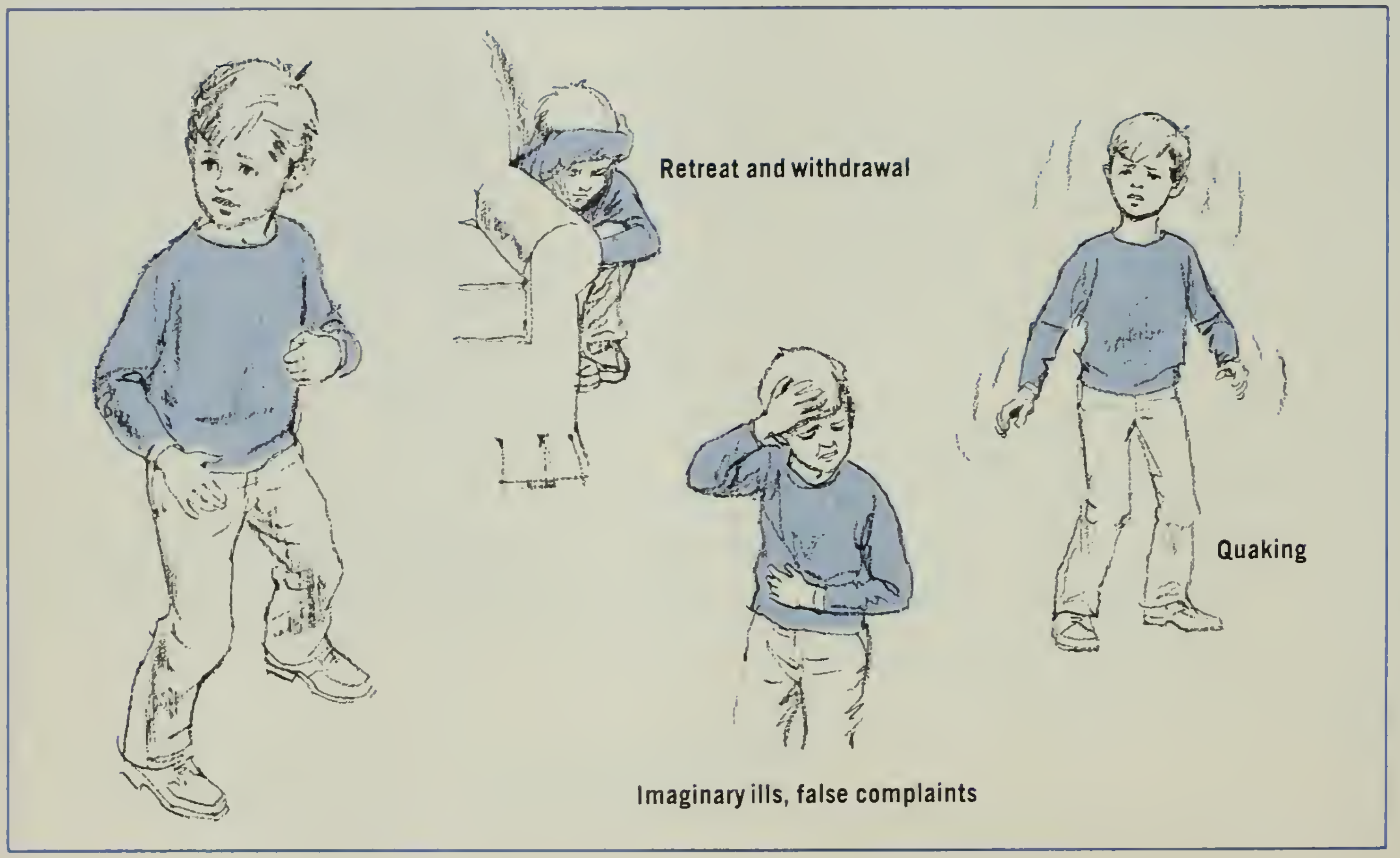
SHYNESS

Shyness is a form of fear which is characterized by a shrinking from familiarity or contact with others. It is always aroused by people, never by animals, objects, or situations. The child is shy because the people are unfamiliar to him, they are larger and more powerful than he, or he does not know how they will react to him. He may be shy in the presence of one person or in the presence of several people.

Studies of babies have revealed that during the middle of the first year of life shyness is an almost universal reaction to strangers or to familiar people who look unfamiliar because of different clothes or hair styles. That it is fear of the unfamiliar that gives rise to shyness is shown by the change that occurs in the baby as soon as he becomes accustomed to a stranger or recognizes the person. Typically, the child stops crying and reacts in a friendly way. Shyness before strangers is shown so often at this age that the period is often labeled the "strange age" or the "period of infantile fearfulness" (27, 28, 135).

At 6 months, the baby is intellectually mature enough to recognize the difference between familiar and unfamiliar people, but he is not mature enough to realize that their unfamiliarity poses no threat. As he comes in contact with more and more people, he learns that strangers are often pleasant playmates or companions. Consequently, his shyness becomes less intense and of briefer duration. If shyness is extremely intense and frequent, it may lead to a generalized timidity that affects the child's social relationships long after babyhood is over. Then he becomes a "shy child."

Figure 9–4. Some typical ways of showing fear in childhood.



Few children escape an occasional experience of shyness. A child may be shy in the presence of a guest in the home, a new baby-sitter, or a new teacher. He may experience shyness when his parents or peers are in the audience when he recites, sings, or participates in a Sunday school pageant or school play. His shyness comes from uncertainty about how they will react to him and fear that they will laugh.

Response Patterns in Shyness. In a baby, the usual response in shyness is crying, turning the head away from the stranger, and clinging to a familiar person for protection. Later, when the child is able to creep or walk, he runs away and hides. When he comes out from the hiding place, he does so slowly and cautiously, as does the child who is afraid of an animal. Only after he is sure that there is no real danger is he willing to approach the stranger.

Older children show their shyness by blushing, by stuttering, by talking as little as possible, by nervous mannerisms, such as pulling at the ears or clothing, shifting from one foot to the other, and bending the head to one side and then raising it coyly to look at the stranger. They try to make themselves as inconspicuous as possible by dressing like everyone else and by speaking only when spoken to.

Damaging Effects of Shyness. So long as shyness is only a passing phase in early babyhood, it is not serious. Since it is an almost universal reaction at this age, no baby is unfavorably judged when he shows shyness. If it becomes a persistent pattern of emotional behavior, however, it has serious effects on the personal and social adjustments of the child and serves no useful purpose. The effects on the child are listed in Box 9-4.

EMBARRASSMENT

Like shyness, embarrassment is a fear reaction to people, not to objects and situations. It differs from shyness in that it is not aroused by strangers or by familiar people in unfamiliar clothes or roles but rather by uncertainty about how people will judge one and one's behavior. It is, therefore, a state of self-conscious distress.

Because embarrassment depends on the ability to know what members of the social group expect and to assess whether or not one can live up to their expectations, it develops later than shyness. It is usually not present in a child less than 5 or 6 years of age.

As the child grows older, embarrassment is heightened by memories of experiences in which his behavior fell below social expectations. This tends to exaggerate his fear of how others will judge him in the future. Since fear predisposes the child to be awkward and to speak haltingly, it often results in behavior that leads to unfavorable social judgments.

A number of studies have shown that memories of humiliating and ego-deflating experiences play an important role in heightening embarrassment. Both adolescents and adults report that such memories form the basis of unfavorable self-concept. This becomes a circular situation: The more powerful the

Box 9-4

EFFECTS OF SHYNESS ON PERSONAL AND SOCIAL ADJUSTMENTS

- If persistent, shyness leads to a *generalized timidity* which causes the child to be afraid to try anything new or different. This results in achievements below his potentials.
- Fear of strangeness can, unless checked, become a generalized fear of anything that differs from the accustomed. This militates against the child trying to do anything new—a *fear that stifles creativity.*
- Shy children contribute little to the group, so they are not popular. Generally, they are not disliked, but are *overlooked* and *neglected.* This contributes to poor adjustment because of lack of social learning experiences.
- Shyness makes it difficult for a child to play a *leadership* role because of his inability to communicate effectively and creatively with others.
- The shy child is afraid to talk to others, so they do not talk to him. This encourages the child to become *self-bound.*
- Except in babyhood when shyness is normal, the shy child is likely to receive unfavorable social judgments. He is likely to be considered less bright that he actually is.
- Since self-evaluation reflects social judgments, the shy child judges himself as others judge him. This contributes to the development of an inferiority complex.

memories of past embarrassments, the poorer the self-concept and the more prone one is to interpret the reactions of others as unfavorable, thus giving rise to new embarrassments (72, 113, 133).

Social expectations change as the child grows older, so the sources of embarrassment are different at different age levels. People do not expect young children to have adult manners. If a young child fails to say "Thank you" or "I'm sorry," adults will overlook it. As childhood draws to a close, social expectations change, and the child knows it. Therefore, when he fails to say or do what he knows other people expect, he will be embarrassed.

Responses to Embarrassment. Most of the common responses in shyness—blushing, nervous mannerisms, stuttering, and avoidance of situations which formerly gave rise to the emotion—are also characteristic of embarrassment. Because of the similarity, it is not always easy to know whether the child's behavior is an indication of shyness or of embarrassment.

There is one major difference, however. The shy child speaks as little as possible; even when asked a question, he often hesitates to reply. The embarrassed child, on the other hand, speaks out; he is intent on explaining and justifying his behavior in the hope of dispelling the unfavorable social judgment that caused his embarrassment. By contrast, the shy child will be taciturn.

Much of the unsocial speech of a prepubescent child can be traced to his attempts to justify his behavior in the eyes of others and thus improve the image he believes they have of him. For example, by blaming others for his poor schoolwork—his siblings make so much noise that he cannot study or his teachers bear a "grudge" against him—he hopes to explain away his embarrassment over a poor report card.

Effects of Embarrassment. Like shyness, embarrassment contributes to poor personal and social adjustments, leads to unfavorable self-concepts, and undermines self-confidence. It differs from shyness, however, in that it often serves as a motivation to learn to behave in a way that will conform to social expectations. A child who has been embarrassed because he did not say "Thank you" when this was expected of him will be motivated to remember to say the expected words in the future.

Frequent embarrassments can make childhood an unhappy period and can lay the foundations for personality maladjustments that come from feelings of inferiority and social rejection. There is little evidence, however, that embarrassment leads to a generalized feeling comparable to the timidity induced by an excess of shy experiences (71, 113, 133). Many children forget embarrassing experiences because they learn to behave in a way that keeps them from recurring or because they are able to rationalize them by projecting the blame on others.

WORRY

(Worry is an imaginary fear. Unlike real fear, it is not aroused directly by a stimulus in the environment, but is a product of the child's own mind. It comes from imagining dangerous situations which *could* arise. It is aroused by *specific* situations, and is usually an illogical exaggeration of what is likely to happen in those situations. Worry is normal in childhood even in the best-adjusted children.

Before a child is capable of worrying, he must reach a stage of intellectual development in which it is possible for him to imagine things not immediately present. This does not happen until almost 3 years of age. Worries become more frequent and more intense as childhood progresses. Ordinarily worrying reaches a peak just before the child becomes sexually mature, after which it declines. The decline is related to intellectual development. As the ability to reason improves, the child is able to see how illogical many of his worries are.

Where do worries originate? Many of them come from the mass media—books, comics, movies, radio, and television. Children are too immature intellectually to realize that the situations depicted in the media are merely make-believe, designed to amuse them, and they imagine that similar situations could arise in their own lives. Other worries come from the warnings parents use to control children's behavior. When a mother tells her child, "If you're not good, the cops (or the goblins or the witches) will get you," it is not surprising that he worries about whether they will come and carry him off.

When children get together and talk about their frightening experiences, each child in the group imagines that such things *could* happen to him. He then develops new worries, many of which have no relationship to his own experiences.

Common Childhood Worries. What a child worries about is greatly influenced by what is significant in his life at the time. Despite marked individual differences, certain worries are typical for American children at various age levels. The most common worries center around the home, family and peer relationships, and school problems, with the latter becoming more prominent as children progress in school. Typical family worries relate to the health and safety of family members and to being scolded or punished by the father or mother. School worries center around being late, failing tests, being scolded or punished by the teacher, doing reports, and being left behind. As acceptance in the peer group becomes increasingly important, worries center around social-adjustment problems, such as how to be more popular. As puberty changes begin, worries center around the body and sex-appropriate development (7, 77).

Worry Responses. The way in which a child expresses his worries depends upon his personality pattern. One who feels inferior and inadequate tends to internalize his worries, thinking about them and exaggerating them out of all proportion. A better-adjusted child by contrast, is more likely to discuss his worries with someone who he thinks will be sympathetic. A child who feels both insecure and rejected often verbalizes his worries in the hope of winning sympathy and, through it, improving his social acceptance. Extroverts at all ages verbalize their worries more than introverts.

Almost every child expresses his worries by his facial expression. He "looks worried" and others know that he is worried. Only as he grows older and realizes that worry is not a particularly acceptable emotional pattern will he try to control his facial expression. Some children, however, deliberately try to look worried in order to win sympathy and attention.

Effects of Worry on Adjustment. Worry plays havoc with personal and social adjustments. Because it is prolonged by continued imaginings of what might happen and because it rarely leads to overt action, as does fear, it upsets body *homeostasis* and interferes with health and growth. Digestive upsets, sleeplessness, enuresis, and many other physical disturbances characterize the worrier.

Upsets in body homeostasis interfere with *motor skills*, and when the child worries, he tends to be clumsy. Worry also interferes with *mental efficiency*. The worried child is unable to concentrate on what he is trying to learn and, as a result, his academic achievements fall below his capacities.

Even though people may give temporary sympathy and attention to a worried child, they do not find him a very enjoyable companion. Thus, worry interferes with *social adjustments*. The child who worries more than his age-mates tends to be neglected and, sometimes, rejected.

The only important beneficial effect of worry is that it may be a source of *motivation* to action. The child who is worried about his schoolwork, for example, may be motivated to study harder and thus work up to his capacity. Unfortunately, this beneficial effect of worry is too infrequently experienced to counterbalance the damaging effects.

ANXIETY

Anxiety has been defined by Jersild as a "painful uneasiness of mind concerning impending or anticipated ill" (77). It is marked by apprehension, uneasiness, and foreboding from which the individual cannot escape; it is accompanied by a feeling of helplessness because the anxious person feels blocked, unable to find a solution for his problem. The uneasy mental state characteristic of anxiety may in time become a generalized "free-floating" anxiety in which the child experiences a mild state of fear in any situation which he perceives as a potential threat.

Though anxiety develops from fear and worry, it is distinguished from them in several respects. It is more vague than fear. Unlike fear, it does not come from an existing situation, but from an *anticipated* one.

Like worry, anxiety is due to imaginary rather than real causes. Anxiety differs from worry, however, in two respects. *First,* worry is related to *specific* situations, such as parties, examinations, or money problems, whereas anxiety is a *generalized* emotional state. *Second,* worry comes from an *objective* problem, whereas anxiety comes from a *subjective* problem.

Anxiety depends upon the ability to imagine something not present, so it develops later than fear. It is often found during the early school years and tends to increase during childhood, especially from the fourth to the sixth grades. It does not wane during puberty, as worry does, but becomes more intense. Whether it will wane later depends largely upon the environment in which the individual lives, the pressures put on him to achieve beyond his capacities, and many other conditions.

Anxiety often develops after a period of frequent and intense worry that undermines the child's self-confidence and predisposes him to a generalized feeling of inadequacy. Contagion may also be responsible for the development of anxiety. If a child is closely associated with an anxious person, his mother or a sibling, for example, he may imitate anxiety. If he is already suffering from anxiety, association with an anxious person will tend to intensify it.

Box 9–5

CLOAKS FOR CHILDHOOD ANXIETY

- *Boisterous and show-off behavior.* By showing off, the anxious child tries to convince himself and others of his competence.
- *Boredom.* Anxiety makes a child restless and disturbed, and he cannot concentrate on anything long enough to become interested in it.
- *Ill-at-ease behavior.* Whether alone or with others, the anxious child feels insecure and shows his anxiety by nervous mannerisms and speech problems.
- *Avoidance of anxiety-threatening situations.* The child avoids threatening situations by going to sleep, even though not tired, by keeping himself so busy that he has no time to think, or by withdrawing into a fantasy world.
- *A typical reaction to stimuli.* The anxious child over- or underreacts. A slight criticism may send him into a fit of rage, or a vicious attack may be met with an apparently calm suppression of all anger.
- *Out-of-character behavior.* A friendly child who is anxious may show a streak of cruelty or a usually kind child may commit a brutal act.
- *Excessive eating.* Anxious children almost always become nibblers of sweets and, as a result, become overweight.
- *Excessive use of mass media.* Anxious children tend to use television and other mass media more than their age-mates. In this way, they escape temporarily from anxiety-threatening situations.
- *Excessive use of defense mechanisms.* While all children use defense mechanisms, especially projection of blame on others, anxious children use them excessively in the hope of freeing themselves from the vague uneasiness caused by feelings of guilt and inadequacy.

Anxiety-response Patterns. In its milder forms, anxiety may be expressed in readily recognizable behavior, such as depression, nervousness, irritability, mood swings, restless sleep, quick anger, and extraordinary sensitivity to what others say or do. Anxious children are unhappy children because they feel insecure. They may blame themselves because they feel guilty about not coming up to the expectations of parents, teachers, and peers, and they often feel lonely and misunderstood. Their self-dissatisfaction is generalized rather than being limited to a specific situation.

In its stronger forms, anxiety may not be so easily recognizable. Some of the common cloaks a child may use to hide his anxiety are given in Box 9–5. Most of these are used unconsciously, and they keep the child himself as well as others from recognizing his anxious state.

Since there are so many possible ways for children to express their anxiety, individual patterns vary enormously. Studies of *sex differences* in anxiety responses report that girls generally react by daydreaming or by developing feelings of inadequacy which are expressed in withdrawal behavior. Boys find that anxiety is not considered masculine, so they try to cloak it by being rebellious, boisterous, or annoying (54, 59, 73, 159).

Anger

Anger is a more frequent emotional response in childhood than fear. Anger-provoking stimuli are more numerous, and the child discovers at an early age that anger is an effective way to get attention or to satisfy his desires. Each year, the number of anger-arousing situations increases, and each year, the child displays more angry reactions. By contrast, fear reactions decrease because the child comes to realize that in most instances there is no real need for fear. In addition, he is better protected from frightening stimuli and learns, at an early age, to avoid situations which might call forth fear.

The frequency and intensity with which children experience anger varies from child to child. Some children can withstand anger-provoking stimuli better than others. In a particular child, the ability to withstand such stimuli varies according to the need that is being blocked, the child's physical and emotional condition at the time, and the situation in which the stimuli occur. One child may react with petty annoyance, another may react with an angry outburst, and still another with withdrawal, showing intense disappointment and feelings of inadequacy.

Stimuli to Anger. In general, the situations that give rise to angry responses involve restraint: interference with movements the child wishes to make, either by others or by his own inabilities; blocking of activities already in progress; thwarting of wishes, plans, and purposes the child wants to carry out; and a number of cumulative irritations. As Jersild has stated, "The occasions that elicit anger parallel the course of development. A child's susceptibility to anger at any given maturity level is influenced by the *limitations* and by the *urges, strivings,* and *activity tendencies* that are characteristic of that level" (77).

The *baby* responds with angry outbursts to minor physical discomforts, interference with physical activities, and imposition of restraints connected with physical care, as in bathing and dressing. His inability to make himself understood through his babblings or his early attempts at speech likewise irritates him. Then, too, he becomes angry if people do not give him as much attention as he craves or if his possessions are interfered with.

Preschool children are angered by many of the same conditions that anger babies. They especially resent interference with their possessions, and they fight continually with other children who grab their toys or interfere with their play. They become angry when toys or other objects do not work as they want them to and when they make mistakes in what they are attempting to do. In addition, they become angry when ordered to do something they do not want to do at that moment.

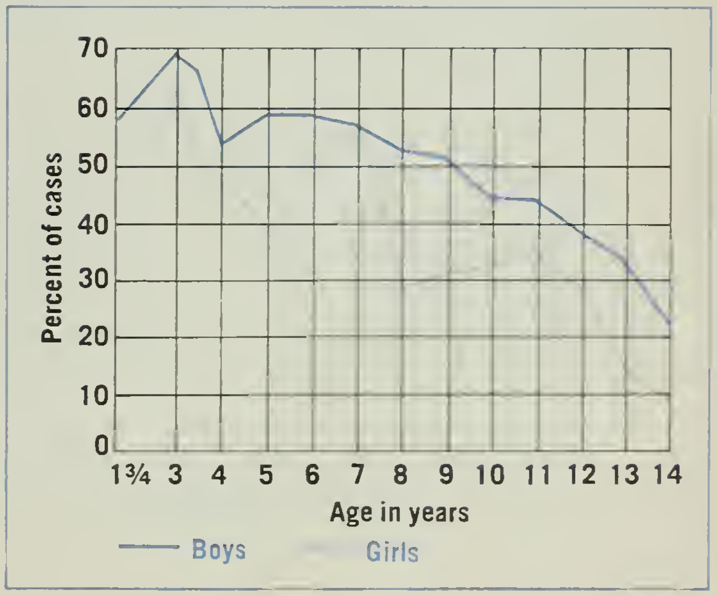
In an *older child,* thwarting of desires, interruption of activities in progress, constant faultfinding, teasing, "lecturing," or making unfavorable comparisons with other children will lead to anger. The older child frequently sets goals beyond his reach. When he fails, he becomes angry at himself or at people he believes have stood in his way. He also becomes angry when he feels that he or his friends are unjustly reprimanded or punished or when he is slighted, neglected, or ridiculed by other children.

Anger Responses. Responses to anger can be roughly divided into two major categories: impulsive and inhibited. *Impulsive responses* are usually called aggression. They are directed against persons, animals, or objects. They may be physical or verbal, and they may be mild or intense. Violent outbursts of anger, or temper tantrums, are typical in young children. The child does not hesitate to hurt others by any method at his disposal—hitting, biting, spitting, kicking, punching, poking, or pulling. Around the age of 4 years, language is added to the repertoire of angry responses. Figure 9–5 shows the ages at which temper tantrums reach their peak and then wane. Note the sex differences.

Impulsive expressions of anger are more common than inhibited expressions. They appear earlier, are more annoying to others, and are more socially unacceptable. Most impulsive expressions of anger are *extrapunitive,* in that they are directed against others. Some are *intrapunitive,* in the sense that the child directs the anger against himself.

Inhibited responses are kept under control or "bottled up." The child may withdraw into himself, thus fleeing from the offending person or object. He then becomes apathetic. His behavior suggests that he is indifferent, that he is not disturbed enough to bother about the frustration, or that he is lacking in "guts," for he is willing to "take it lying down." Such a response is labeled *impunitive,* as contrasted with *extrapunitive* and *intrapunitive.* The apathetic child is not so indifferent to anger-provoking situations as he may seem. He may simply feel that resistance is futile, that it is to his best interests to accept the frustration, or that it is better for him to conceal his

Figure 9–5. Temper tantrums normally decrease with age. (Adapted from J. Macfarlane, L. Allen, and M. P Honzik: A developmental study of behavior problems of normal children between twenty-one months and fourteen years. *University of California Press, 1954. Used by permission.)*



anger than to express it and run the risk of punishment or social disapproval. He may, however, show that he is angry by acting hurt and sullen, feeling abused, being sorry for himself, threatening to run away, or even inflicting physical pain on himself.

It is never possible to predict whether a given child will express his anger impulsively or inhibitedly in a given anger-producing situation. Even though a child may habitually express his anger impulsively, he may at times inhibit the expression. Similarly, a child who inhibits the expression of his anger at home, for fear of punishment or loss of parental love, may express it aggressively in the nursery school or on the playground when his parents are not present. If he feels inadequate to cope with the situation alone, he may inhibit his aggressiveness in a play situation when an adult is not around to protect him. When a child is with comparative strangers, he is likely to be on his good behavior. When he gets to know the peer group better, he may be less inhibited.

Variations in anger responses are greater in older children because they have learned how people react to their anger and have discovered the *best* way to express their anger and still win minimum disapproval.

JEALOUSY

Jealousy is a normal response to actual, supposed, or threatened loss of affection. It is an outgrowth of anger, giving rise to an attitude of resentment directed toward people. Often some fear is combined with anger in the jealousy pattern. The jealous person feels insecure in his relationship with a loved one and is afraid of losing status in that person's affection. The situation that calls forth jealousy is always a *social* one. There are three major situational sources of jealousy, the importance of each varying with the age of the child.

First, most childhood jealousies are homegrown: that is, they originate in conditions that exist in the home environment. Because the new baby takes much of the time and attention the older child has become accustomed to receiving, the older child feels neglected. He then becomes resentful toward both the mother and the new baby. Davis and Havighurst (40) have explained how this situation affects a child:

> *To the older child, this neglect comes suddenly and stingingly. No longer is he the most important and the most attended. In the normal middle-class family, where mothers devote themselves to infant-care as if it were a ritual, it is almost inevitable that the older child should feel wronged by his mother, and jealous of the baby. . . . To make affairs worse, the mother, of course, can never tell him that she is sorry, never say he has been wronged! But the child, himself, who has been "overloved" and overstimulated by his parents, usually feels deeply that he has been "wronged."*

Parental favoritism results in a similar reaction. Without realizing it, many parents show a disproportionate interest in a child who happens to be especially attractive, affectionate, or gifted. Or the favored child may be sick or handicapped. Most often, parental favoritism is based on sex preferences. While fathers generally claim that they want sons, they are usually more lenient and affectionate toward daughters. Mothers generally prefer sons and are more lenient with them. The nonpreferred child quickly perceives this differential treatment and resents it (22, 84, 114).

Even when a child begins school and develops interests outside the home, his jealousy will not necessarily decrease. He may worry about whether the stay-at-home younger sibling is getting the inside track to the mother's affection during his absence. This makes him angry and resentful, especially if he does not like school. He feels that being sent off to school puts him at a disadvantage in his competition with the younger sibling, and he resents being forced to go against his will. This resentment intensifies his jealousy of the sibling whom he regards as the parent's favorite.

Second, social situations in the school are responsible for many of the jealousies of the older child. Jealousy engendered in the home often carries over to the school and makes the child regard everyone there—teachers as well as classmates—as threats to his security. To safeguard his security, the child then develops a proprietary attitude toward his teacher and the classmates he selects as friends, becoming angry if they show an interest in someone else.

While jealousy normally wanes when the child makes good adjustments to school, it will flare up if the teacher compares him unfavorably with classmates or with an older sibling.

Girls are often jealous of the boys in their classes. They feel that teachers permit boys to do things girls are not permitted to do or that they are more lenient when boys cause disturbances in the classroom or do not do their work.

Third, social situations in which a child feels that he has been deprived of material possessions other children have make him jealous of them. This kind of jealousy comes from *envy*—an emotional state of anger and resentment directed toward another because of his material possessions. Envy is a form of covetousness. Among siblings, "two of everything" does not necessarily solve the problem. The older child feels that he should have more than the younger by virtue of his seniority.

Jealous Responses. The behavior of the jealous child varies, depending on the situation. In one situation, he may attack a person, while in another, he may attempt to win that person's favor. Most of his behavior, however, shows an underlying feeling of uncertainty and insecurity. It suggests that he is trying to vindicate or prove himself, even when he has no visible rival.

In time, the child discovers—mainly through trial and error—the responses that relieve him of the anxiety engendered by jealousy. He then repeats these responses until they develop into a habitual pattern of jealous behavior. Sometimes the jealous responses become an obsession that takes complete control over the child's thoughts. At other times, the responses are sporadic, appearing only when the child is directly confronted by the conditions that arouse jealousy. The large repertoire of jealous responses can be divided into two categories: direct and indirect. The common patterns of behavior in each are shown in Box 9–6.

Predictable *age differences* are noted in children's responses to jealousy. Among young children, the responses are mainly direct and aggressive. Among older children, they are more varied and indirect, although some aggressiveness does occur, usually at school and on the playground. Age differences are also apparent in the frequency with which children experience jealousy. Two peaks occur, the first at 3 years and the second just before puberty, at 11 years.

GRIEF

Grief is a psychic trauma, an emotional distress resulting from the loss of something loved. In its milder forms it is known as *sorrow* or *sadness*. Regardless of its intensity or the age at which it occurs, grief is one of the most unpleasant emotions.

For most children, grief is not a very common emotion. *First,* parents, teachers, and other adults try to insulate the child from the painful aspects of grief on the grounds that it can spoil childhood happiness and lay the foundations for an unhappy adulthood. *Second,* the child has a short memory and he can be helped to forget his grief if his attention is quickly diverted to something else. *Third,* the provision of substitutes for what the child has lost can often turn his grief into happiness.

Each year, children experience more grief because they are not as thoroughly shielded from it as when they were younger. Their memories are better, and even diverting their attention or providing a substitute for their loss does not make them forget. In addition, they encounter more situations which give rise to grief.

The more the child depends on the lost object, animal, or person, the greater his grief. Loss of a toy that he plays with only occasionally will not cause as intense grief as loss of one which he takes to bed every night to give him a feeling of security in the dark. The lonely child who has few playmates is more grief-stricken by the loss of a pet cat or dog than is the child whose time is occupied in play with other children. If a substitute does not satisfy the child's

Box 9–6

COMMON CHILDHOOD REACTIONS TO JEALOUSY

Direct Responses

Direct responses to jealousy may be aggressive attacks—biting, kicking, hitting, pushing, punching, and scratching—or socially approved attempts to outdo one's rival in competition for the attention and affection of the loved person. When jealousy springs from envy, the child may be motivated to engage in socially disapproved acts, such as cheating or stealing. He may complain about his lot, disparage his own possessions, make sour-grapes comments about the things he craves, or blame his father for not providing him with the things his age-mates have.

Indirect Responses

Indirect responses are more subtle than the direct ones and, therefore, harder to recognize. They include reversion to infantile forms of behavior, such as bed-wetting and thumb-sucking; bids for attention in the form of new fears or food idiosyncrasies; general naughtiness; destructiveness; verbal expressions, such as tattling and name calling; unwonted displays of affection and helpfulness; venting of feelings on toys or animals; and subdued behavior, as in grieving.

needs as completely as the original, the feelings of insecurity aroused by the loss will intensify and so will his grief.

Grief Responses. Reactions to the loss of a cherished person or thing may be overt or inhibited. The typical *overt* expression of grief is crying. The crying may be so anguished and prolonged that the child will enter a state of near hysteria that lasts until he is physically exhausted. If he interprets the loss as a punishment for misbehavior or as a "mean" act by a person who wants to get even with him, his grief will be accompanied by rage and will lead to all the overt expressions of anger.

Inhibited expressions of grief consist of a generalized state of apathy marked by a loss of interest in things going on in the environment, loss of appetite, sleeplessness, a tendency to experience fearful dreams, refusal to play, lack of communication with others, and general listlessness. Prolonged grief leads to anxiety, with all its undesirable accompaniments.

Box 9-7

EFFECTS OF GRIEF ON PERSONAL AND SOCIAL ADJUSTMENT

- Grief may lead to feelings of martyrdom if the child interprets his loss as a punishment.
- The grief-stricken child may become resentful if he feels that his parents or others could have prevented the loss.
- Grief may lead to feelings of guilt if the child believes that he could have prevented the loss himself.
- The grief-stricken child may withdraw and become self-bound, thus eliminating opportunities for socialization.
- Grief may encourage the child to escape from reality by daydreaming or by contemplating suicide.
- Grief will militate against achievement if the child is too preoccupied with his loss to concentrate on what he is doing.
- Grief may be intensified by anxiety, with all its damaging effects.

Effects of Grief on Adjustments. Adult fear of the damaging effects of grief on the child's personal and social adjustments is justified by the findings of scientific studies. Grief is especially damaging to children because their intellectual immaturity and limited experience make it impossible for them to understand why the loss occurred. Their vivid imaginations encourage them to exaggerate the importance of what they have lost and to misinterpret the cause of the loss. To highlight the damages of childhood grief, its major consequences for personal and social adjustment are given in Box 9-7.

CURIOSITY

Curiosity is a pleasant emotional state. It provides motivation to explore and to learn new meanings, both of which activities are satisfying and conducive to good personal and social adjustment. Curiosity adds a pleasant excitement to life. It acts as a stimulus to physical well-being without disturbing body homeostasis as the unpleasant emotions do.

If curiosity is to be good for the child, however, it must be controlled so that the exploration it motivates will not be physically or socially damaging. Uncontrolled curiosity, for example, can lead a child to explore dangerous objects, such as matches or an abandoned refrigerator, and can lead to injury or even death. It can annoy and antagonize people if the child is nosy—prying into others' possessions or asking questions about personal matters.

Curiosity abounds in the child. He is interested in everything in his environment, including *himself*. He is curious about his body: why its parts exist, what they do, and why they have their particular form. He wants to know about his body inside and out—what is in his head, his stomach, and his legs. He asks why his body differs from that of a child of the other sex and why children's bodies differ from adolescents' and adults'.

He is curious about *people:* why they dress, act, and speak as they do; why older people differ in looks and behavior from younger people; what their clothes or ornaments are made of, how they feel, and why they are worn. He is as curious about *familiar objects*, such as a cake of soap or a vase of flowers, as about those which are used only occasionally or seasonally, such as a rug shampooer or a lawn mower. Long before he enters school, his curiosity is aroused by such *mechanical devices* as light switches, gas burners, television sets, and automobiles.

As his environment expands, so does the child's curiosity. A longing to understand some of the *mysteries of life* which have never been explained to his complete satisfaction becomes a source of motivation in his formal education, as do many new things, unheard of during his earlier years.

Sudden changes usually arouse the curiosity of an older child. When mother has a new hair style or father starts to wear glasses or when new draperies appear in the living room, he notices the change at once and is curious to explore it. Changes in his body likewise arouse his curiosity. When a second tooth begins to cut through where the baby tooth fell out, he will examine it in the mirror and feel it every few hours to see if it is getting bigger. When the physical changes of puberty begin, he will not only watch these changes but examine them closely. He will ask what they mean; he will compare what is happening to his body with what is happening to the bodies of his friends; and he will compare his body with pictures of adults of his sex to see how he differs from the cultural ideal.

Curiosity Responses. The baby expresses curiosity by tensing the face muscles, opening the mouth, stretching out the tongue, and wrinkling the forehead. By the second half of the first year, he stretches his body, leans forward, and grasps the curiosity-provoking object. As soon as he gets it, he begins a more thorough exploration by handling, pulling, sucking, shaking, and rattling it.

Social pressures—admonitions and punishment—check the child's satisfaction of curiosity through direct exploration. Therefore, as soon as the child is able, he asks *questions* about the things that arouse his curiosity. The "questioning age" begins around the third year and reaches its peak at approximately the sixth year. When the child is old enough to read, he discovers that he can satisfy much of his curiosity through reading.

Value of Curiosity. Curiosity is not only a pleasant emotion but also a valuable one. When the child learns, through direction, how to make his curiosity work *for* him rather than against him, he will reap the rewards which curiosity is able to give. The most important of these are listed in Box 9–8.

JOY, PLEASURE, DELIGHT

Joy is a *pleasant* emotion. In its milder forms, it is known as pleasure, delight, or happiness. While all children experience varying intensities of joy, variations in the amount of joy they experience and the way they express it can to some extent be predicted. There are, for example, predictable age trends, with younger children experiencing joy in more pronounced forms than older children.

Among *babies,* the pleasant emotions of joy, happiness, and delight come from physical well-being. They are also associated with the baby's activities, such as cooing, babbling, creeping, standing up, walking, and running.

The *preschool child* responds to more stimuli than the baby. His pleasure comes mainly from activities in which others are involved, primarily children, and is particularly strong when his achievements surpass those of other children.

In *older children,* the stimuli that aroused pleasant emotions at the younger ages continue to bring pleasure. Physical well-being, incongruous situations, play on words, slight calamities, and sudden or unexpected noises never fail to call forth a smile or a laugh.

As the *puberty* changes begin, joy becomes less and less frequent. This is not because the environment contains fewer joy-provoking stimuli, but because

Box 9–8

THE REWARDS OF CURIOSITY

- Curiosity adds to the child's happiness because it makes life interesting and exciting.
- The curious child is alert. He is interesting to others; therefore his personal and social adjustments are likely to be good.
- Curiosity increases a child's interest in his environment and in the people he comes in contact with.
- The child who is curious looks to find something new in the old and the familiar.
- Curiosity encourages the child to develop his intellectual capacities.
- Curiosity motivates the child to learn.
- The curious child is more likely to be prepared for new and unexpected experiences than the noncurious.

the child's outlook on life has changed. The pubescent is often overwhelmed with anxiety about himself and the way his body is developing. He does not feel in top physical condition much of the time, and he may be grossly dissatisfied with his performance in many areas of life.

Joy Responses. Joyful expressions range from a quiet, calm, self-satisfied contentment to a bubbling-over exuberance. *Boys,* on the whole, tend to be more overtly expressive of their happiness than girls, but within each sex group individual differences are great.

As children grow older, they learn to express their joy in the socially approved pattern for the group with which they are identified. Boys learn that gloating over a person they have defeated is poor sportsmanship; they therefore learn not to show their joy, even though inwardly they may be glowing with pleasure.

The joyful emotions are always accompanied by smiling or laughing and a general relaxation of the entire body. This contrasts markedly with the tenseness that occurs in the unpleasant emotions. Little children express their happiness in motor activities. They jump up and down; roll on the floor; crow with glee; clap their hands; hug the person, animal, or object that has given rise to their joy; and laugh uproariously.

Social pressures force the older child to control his expressions of joy so that he will not be considered infantile. He is less noisy and rambunctious than the younger child, although he laughs in a loud, raucous manner. A boy will slap a friend or anyone nearby on the back or head when he is particularly happy. Girls learn that such behavior is considered sex inappropriate for them, and they are more likely to throw their arms around a friend and hug and kiss her. Boys slap whoever happens to be nearest when they are happy, but girls transfer their strongest expressions of joy to a pet animal or to an inanimate object, such as a doll or pillow, if no close friend is present.

Importance of Joy. Whatever its form, joy is an emotion that enhances the child's well-being and increases the likelihood of good personal and social adjustment. How joy aids the child's adjustment is shown in Box 9–9.

AFFECTION

Next to joy, affection is the most valuable emotion because it contributes heavily to good personal and social adjustment. Affection is an emotional reaction directed toward a person, an animal, or a thing. It indicates warm regard, friendliness, sympathy, or helpfulness, and it may take a physical or verbal form. Learning plays an important role in determining the *particular* persons or objects to which affection is directed. The child tends to like most those who like him and are "friendly" in their relationships with him. His affection is directed primarily to people. Animals and inanimate "love objects" are usually substitutes for a human object of affection.

To be a pleasant emotion and to contribute to good adjustment, affection must be reciprocal. There must be an emotional linkage between the child and significant people in his life. Bossard and Boll have labeled this reciprocal relationship the "empathic complex" (22). Garrison (55) has emphasized the need for balance in the relationship:

> *Love seems to be a two-way affair and grows best when it is both given and received. A constant rejection in the home may leave the child's capacity for giving forth affection undeveloped, or may cause him to seek affection from individuals outside the home. Overaffection and indulgence may have as undesirable effects as lack of affection or rejection. . . . There is, therefore, the danger that overaffection for one or both parents will tend to exclude affection for children of the child's own age level*

Since the affection one has for others is conditioned by the kind of relationship one has with them, the child's affection for different family members will, understandably, vary. In general the young child has greater affection for his mother than for his father because the mother is a more constant companion to the child and is, as a rule, a less strict disciplinarian. The child shows greater affection for siblings who show affection for him and do not ignore, criticize, tease, or bully him.

Outside the home, the same principle holds: The child shows the greatest affection for peers, teachers, or other adults who like him and give evidence of it in their speech and behavior. A teacher who shows an interest in the child and a willingness to help him will quickly win the child's affection. Within the peer group, the child selects as his friends those who like him and who show affection for him.

Parents who are oversolicitous and overdemonstrative do not encourage the child to express his affection for others; rather, they encourage him to focus his affection on himself. The child who concentrates his affection on one or two people exclusively will feel insecure and anxious when they are absent or when their behavior suggests that the relationship is threatened. Such a child also finds it difficult to establish friendly relationships with other people, especially his peers (104). This leads to a lonely childhood, adolescence and adulthood (99, 153).

Affectionate Responses. Affection is first shown in an outgoing, striving, approaching kind of behavior. Babies under 5 months of age fix their gaze on a person's face, kick, hold out and wave their arms, try to raise their bodies, smile, and turn their trunks. By the sixth month, babies have enough control over their arm movements to reach the loved one. They respond to cuddling by reaching for the loved one's face and by mouth fondling.

After the first year, young children show affection for others in much the same uncontrolled manner as they express other emotions; they hug, pat, stroke, and kiss the loved person or object. Kissing is a less frequent expression of affection in young children than hugging or patting, though they like to be kissed by others. Young children want to be with the loved person constantly and they try to assist him in whatever he is doing.

Much the same pattern of behavior is shown in relation to pets or toys. Favorite toys are hugged and patted until they are literally loved to pieces. A pet animal is hugged and stroked until it is almost choked. Typically, the young child takes with him, wherever he goes, the toys for which he has a deep affection; typically, he wants to play constantly with a pet animal.

After the child enters school, he is likely to feel that physical demonstrations of affection are childish and he is embarrassed by them. He prefers instead verbal responses. A boy, for example, will refer to his closest friends as "good guys"; he will say that family members are "OK." His affection for members of the family and for special friends—his "pals"—is shown by wanting to be with them, by confiding his secrets to them, and, in the case of friends, especially, by trying to keep in constant touch by telephone calls or letters.

Spontaneous expressions of affection for family members or friends do occur occasionally even in an older child. These generally come in "bursts" and at unexpected times, as when the child is surprised by a gift he especially wanted or is given permission to do something he had not expected to be allowed to do.

Emotional Dominance

Emotional dominance means that, of all the emotions a person experiences, one or a few come to have a predominant influence on his behavior. No child is born with a dominance of pleasant or unpleasant emotions or with a dominance of one specific emotion. Instead, the emotions which will become dominant forces in his life depend mainly upon the environment in which he grows up, the relationship he has with significant people, and the guidance he receives in controlling his reactions.

If a child grows up in a home *environment* where happiness prevails and where friction, animosity,

Box 9–9

JOY AIDS PERSONAL AND SOCIAL ADJUSTMENT

Personal Adjustment

- Joy has a good effect on the child's physical condition, and this gives him a more pleasant outlook on life.
- The muscles relax when the child is joyful enabling him to use them for skilled movements.
- A joyful child is motivated to do his best.
- Joy improves the child's looks so that he can be reasonably satisfied with his appearance.
- The child who experiences joy has a favorable self-concept based on reasonable self-satisfaction.

Social Adjustment

- Joy acts as a magnet to attract others—peers as well as adults.
- Joy encourages pleasant responses to others.
- The joyful child is more likely to take the initiative in play, thus placing himself in line for leadership roles.
- Joy sets a model for others to imitate, thus contributing to a favorable home, school, or playground climate.
- The joyful child makes a favorable impression on others, and this contributes to a favorable self-evaluation.

jealousy, and other unpleasant emotional experiences are kept to a minimum, the chances are that he will become a happy child. Overprotective parents who dwell upon the potential danger in everything will encourage the dominance of fear.

A frictional *relationship* with parents or siblings will arouse so much anger and jealousy that these emotions will tend to dominate the child's home life. Similarly, if parents have unrealistically high aspirations for him, the child will tend to be embarrassed, ashamed, and guilty when he realizes, through their criticism, that he has fallen below their expectations. Constant experiences of this kind will soon make the unpleasant emotions the dominant ones in his life.

Lack of *guidance* in learning socially acceptable ways of reacting to frustration can lead the child to adopt angry outbursts as his dominant way of responding in all frustrating situations. Guidance, with emphasis on understanding why frustrations are necessary for his own and others' safety and well-being, can prevent anger from becoming a dominant emotion.

EFFECTS OF EMOTIONAL DOMINANCE

The emotions that become dominant in the child's life will affect his personality and, through it, his personal and social adjustment. The dominant emotions determine what his *temperament* or "prevailing mood" will be.

Temperament is persistent. It decides the child's characteristic adjustment to life. One who has a "cheerful disposition," or who is temperamentally cheerful, will take minor obstacles in stride and show little or no annoyance. One who has a "bad disposition" will express anger out of all proportion to the stimulus that produced it. A child who is temperamentally apprehensive will experience more fear than other children.

At one time people believed that temperament was hereditary, that it was determined by "body humors," glands, and even body build. Today, there is evidence that it is largely a product of learning, although health and endocrine balance are important influences (3, 115, 145). The predominant emotional stimuli of the early, formative years and the way the child learns to respond to them will eventually determine his temperament. Temperament is reflected not only in the child's characteristic method of adjusting to life but also in his facial expression. Even in repose, the child's facial expression reveals whether his disposition is happy, sad, or irritable. His face often tells the story more eloquently than his actions.

How a child expresses his negative emotions is as important as how frequently they occur. A well-adjusted child expresses the unpleasant emotions, especially anxiety and hostility, less often, with less intensity, and with more focus and direction than the poorly adjusted child. The well-adjusted child handles these emotions in such a way that they damage his adjustments only minimally. In the poorly adjusted child, unpleasant emotions affect the entire pattern of response. Even expressions of joy may be tinged with anxiety or hostility. Such a pattern appears in prejudice and other neurotic, maladjustive behavior.

A predominance of the pleasant emotions, such as affection, love, joy, happiness, and curiosity, is essential to normal development. These emotions lead to feelings of security, which help the child approach his problems with self-confidence and assurance, react to minor obstacles with a minimum of emotional tension, and maintain his emotional balance, even when he encounters major obstacles. The child whose emotions are predominantly pleasant is happy and well liked; he generally makes a success of whatever he undertakes. Because of his cheerful disposition, people like to have him around. Furthermore, he has a good chance of being selected for leadership roles.

CONTROL OF EMOTIONAL DOMINANCE

Since certain emotions contribute more to successful adjustment than others, those *emotions should be particularly encouraged.* The good aspects of the less desirable emotions should also be developed. Curiosity is so important to the child's intellectual development that it should be especially encouraged. Similarly, the good effects of fear—a cautious approach to things new and different until it is apparent that they are not harmful—should be encouraged.

To make sure that the emotions become a source of good in the child's life, parents and teachers *should provide guidance to help the child develop the most valuable forms of emotional expression.* For example, the child can be guided to use his curiosity in creative and intellectual pursuits. Left to chance, curiosity can lead the child into dangerous situations. The child can also be taught to direct his anger into socially acceptable channels rather than restraining it and allowing it to become a source of pent-up hostility or destructive behavior.

The stimulus for most emotions comes from the environment. so control of the environment can ensure that desirable emotions will be dominant. When discipline requires that the child be frustrated, for example, a habit of resenting authority or of feeling martyred can be prevented if the child knows why frustration is necessary at times and if he has many other experiences that enhance his happiness. Praise for good sportsmanship in accepting frustrations may take the sting out of some of them.

Emotional Balance

Throughout the first and sometimes into the second year of life, it is possible to control the environment so that the baby will experience a maximum of the pleasant emotions and only a minimum of the unpleasant. Once the child is able to move around freely, however, this is no longer possible. As motor skills improve and independence increases, a great many things in the environment call forth anger, fear, jealousy, and the other unpleasant emotions. Stagner (145) has emphasized the value of learning to cope with both pleasant and unpleasant emotions:

> *A boy or girl who has no fear or suspicion whatever of other people is not too well prepared for life in our competitive culture. Furthermore, we can sympathize with others only if we have had experiences in some degree similar to theirs. A person who has never encountered any misfortune cannot truly appreciate the position of those who suffer. An ideal child-rearing program, therefore, would give the growing personality a sufficient breadth of emotional experiences, but not an excess.*

Emotional balance can be achieved in two ways. The first is *control of the environment* to see that unpleasant emotions are quickly outweighed by pleasant ones so that the balance will be in favor of the pleasant. This is rarely possible beyond the babyhood years.

The second and by far the more practical way is to help the child *develop emotional tolerance*—the ability to withstand the effects of the unpleasant emotions. Since anger is the most common unpleasant emotional experience in childhood, frustration tolerance, or the ability to accept frustrations, is the most important form of emotional tolerance for the child. How this can be achieved is explained in the section of this chapter dealing with emotional control.

In addition to developing tolerance of the unpleasant emotions the child must learn to tolerate joy, affection, curiosity, and other pleasant emotional states so that he does not become so dependent on everything being rosy that he cannot withstand the unpleasant emotions when they arise.

Learning emotional tolerance takes time. It requires an ability to comprehend meanings that are too advanced for the young child. Therefore, control over the environment must continue in gradually modified forms until the child is able to cope successfully on his own. In the case of grief, for example, parents cannot abruptly stop shielding the child. Only when he has become able to cope with grief-stimulating situations well enough not to be overwhelmed by them should control over the environment be removed. Only then will he be ready to come face to face with what the death of a loved one will mean to him and to the pattern of his life.

WHY EMOTIONAL BALANCE IS ESSENTIAL

If a child experiences too many of the unpleasant emotions and too few of the pleasant, his outlook on life will be distorted and he will develop an "unpleasant disposition." His facial expression will become sullen, sad, or generally disagreeable. This will make him less appealing to others and militate against good social adjustment. In turn, his self-dissatisfaction will grow and will lead to minor or major maladjustments.

This does not mean that a child should be overprotected. It means that he should be protected from unreasonable and excessive fear, jealousy, anger, and other unpleasant emotions. In the case of anger, if the child gradually learns to tolerate frustration when he is young, he will not develop the habit of aggressive attack in *all* frustrating situations as he grows older.

Heightened Emotionality

Heightened emotionality means a frequency and intensity of emotional experiences beyond what is normal. In judging heightened emotionality in a child, one must consider the normal pattern of emotionality for *that particular child.*

Any emotion may be experienced more frequently or more intensely at some times than at others. On some days, for example, everything seems to break right; consequently, the person experiences more happiness and more intense forms of happiness on those days. When the happy emotions predominate, the person is said to be in a state of *euphoria*—a sense of well-being and buoyancy. When the most frequent and intense emotions are unpleasant, whether they be anger, fear, jealousy, or envy, the person is said to be in a *state of disequilibrium;* he feels grumpy, disagreeable, and out of sorts. When there is no heightened emotionality—when the emotions are calm—the person is in a state of *equilibrium* (5).

All children experience euphoria, equilibrium, and disequilibrium. What proportion of their time will be characterized by each varies from child to child and, in the same child, from time to time. Many children, unfortunately, experience more disequilibrium than euphoria during periods of heightened emotionality. (Refer to Chap. 3 for an earlier discussion of states of equilibrium and disequilibrium.)

MANIFESTATIONS AND CAUSES

Heightened emotionality is readily recognized by the behavior that accompanies it. If it stems from one of the unpleasant emotions, it is marked by moods and rages which come and go with greater or lesser violence, often outside the range of conscious control or even awareness. Which form it will take will depend not so much upon the intensity of the emotional state as upon what the child has learned is socially acceptable or will bring the least disapproval.

If heightened emotionality is expressed in moodiness, the child is likely to be grouchy, glum, surly, or rude. Should pleasant emotions predominate, he will be so happy and cheerful that he will be singing, offering to help people, saying pleasant things to everyone, hugging his friends or pets, and even skipping and dancing instead of walking. If curiosity is raised to a high pitch, he will be nervous and edgy, asking innumerable questions and trying to find out what he wants to know in every possible way.

Some nervous tension always accompanies heightened emotionality. It may be expressed by thumb-sucking in young children, nail-biting in older children, scratching the head, giggling, or bursting into tears. When the emotion is strong, it is likely to lead to temporary stuttering or slurring. The extremely happy child, like the very angry or anxious child, will stumble over his words, repeat syllables, choke in the middle of a word, or speak so rapidly that he runs one word into another.

During euphoria or disequilibrium, the child is predisposed to react emotionally more readily and more intensely than he normally does. If the emotions he feels are unpleasant ones, he is ready to fly off the handle and go into a temper tantrum at the slightest provocation. If they are pleasant, he is predisposed to laugh uproariously at a joke which, under other circumstances, he might find "stupid"; he will be over-pleased by a gift or a complimentary remark; or he will be more demonstrative in his display of affection than usual. Whatever the stimulus, he will *overreact* to it because he is already in a state of readiness to react. His reactions will tend to be less focused and directed, however, than when he is more calm.

Heightened emotionality may result from physical, psychological, or environmental causes. Frequently more than one cause is operative. Should the child become upset because his schoolwork has fallen below his expectations, for example, he is likely to become nervous. His nervousness will interfere with his eating and sleeping, and the more hungry and tired he is, the more likely he is to react emotionally to any situation, even those which normally call forth little or no reaction. Thus a vicious circle is set into motion, with both physical and psychological causes, often stemming from environmental causes, making their contributions. The causes of heightened emotionality are described in Box 9-10.

CRITICAL PERIODS

Genetic studies have shown that there are predictable times of disequilibrium, characterized by tension, irritability, insecurity, and other forms of maladjustive behavior. These were discussed in detail in Chapter 3. Whenever the child is growing rapidly and his body is changing in shape and functioning, as well as in size, disequilibrium normally occurs (5, 45). It is most pronounced during puberty (45, 114).

As the child grows, new demands are placed on him by the social group. The preschooler is expected to assume more and more responsibility for the care of his body and his possessions, and he is expected to learn to conform to the rules and regulations imposed by his parents. That temper outbursts reach their peak during the preschool period is an indication of the difficulty the child has in adjusting to these new demands (75, 101, 104).

Entry into school necessitates many adjustments, and school rules impose many frustrations. The period of disequilibrium, started before the child enters school, thus continues into the sixth year or even later. This is a time of great upheaval, and until the child can adjust to the new demands, he is likely to experience serious and prolonged stress (1, 114).

Once the child has adjusted to school, a period of equilibrium normally follows—a "rather benign age" psychologically—before the storm and stress of adolescence.

With the onset of the physical and psychological changes of puberty, there is emotional turmoil. New demands are made on the child as he begins to look more like an adult. In addition, the change from the emotional calm of the preceding years is likely to make parents and teachers critical of his behavior. This intensifies the pubescent's belief that "nobody loves me," which, in turn, intensifies his emotional turmoil.

EFFECTS OF HEIGHTENED EMOTIONALITY

Heightened emotionality is far more often characterized by the unpleasant emotions than the pleasant, and therefore generally produces a state of disequilibrium. Most of the studies of the effects of heightened emotionality have concentrated on this state rather than on euphoria.

When euphoria is extremely intense, and this is relatively infrequent, there is reason to assume that its effects will be similar to those of disequilibrium. The basis for this assumption, in the absence of experimental proof, is that *any* intense emotion, whether pleasant or unpleasant, is accompanied by bodily preparation for action which affects the person's accustomed pattern of adjustment.

Many of the effects of heightened emotionality are closely related to the general effects of the emotions on adjustment discussed at the beginning of the chapter. When the emotions are heightened, however, the good effects referred to earlier tend to become more damaging than helpful.

Physical Well-being. Strong, frequent, or persistent emotional states upset the homeostasis and prevent the body from functioning in its normal way. All the major functional systems—circulatory, respiratory, reproductive, and glandular—as well as the digestive system may be affected. If the emotional states are prolonged, both the structure and the functioning of the internal organs may be temporarily or permanently impaired.

Behavior Patterns. When body homeostasis is upset by the emotions, the child's behavior is less

Box 9-10

CAUSES OF HEIGHTENED EMOTIONALITY

Physical Causes

Whenever *homeostasis* is upset, owing to fatigue, poor health, or developmental changes, the child experiences heightened emotionality.

- *Poor health*, due to malnutrition, digestive disturbances or disease.
- An *irritating condition*, such as hives or eczema.
- Any *chronic disturbance*, such as asthma or diabetes.
- *Glandular changes*, especially at puberty. Glandular upsets may also come from chronic emotional stress, as in free-floating anxiety.

Psychological Causes

Important psychological influences include level of intelligence, level of aspiration, and anxiety.

- Poor *intellectual equipment*. Children of the lower *intellectual* levels, on the average, have less emotional control than bright children of the same ages.
- Failure to attain one's *level of aspiration*. Repeated failures may lead to a more or less constant state of anxiety.
- *Anxiety* after a particularly strong emotional experience. The aftereffects of a frightening experience, for example, will predispose the child to be afraid in almost any situation where he feels threatened.

Environmental Causes

Constant tension, an overcrowded schedule, and too many exciting experiences overstimulate the child.

- *Tension* caused by constant bickering and quarreling.
- An excessive number of *restraints*, as in authoritarian discipline.
- *Parental attitudes* of overanxiety and overprotectiveness.
- An authoritarian atmosphere at *school*. An overdemanding teacher or a class assignment ill-suited to his abilities will antagonize a child and send him home in a bad humor.

well organized than normal. It is more like the behavior of a younger child. Play activities, for example, are less constructive when the child is frustrated because he cannot concentrate on what he is doing.

Mental Efficiency. Upsets in body homeostasis are also reflected in decreased mental efficiency, especially in the areas of memory, concentration, and reasoning. During emotional tension, the child is unpredictable and unstable. As a result, his performance, particularly when reasoning is involved, is inconsistent. Emotions frequently prove to be a mental block to recall—even of well-learned material. This may be seen in a person who has stage fright.

Schoolwork. Schoolwork suffers when emotional tension is present. Reading problems, especially, are more common among children predisposed to emotional tension (50). High anxiety may even produce a distortion of the subject matter, causing the child to answer questions incorrectly.

Social Adjustments. The child's emotions affect his social adjustments *directly* because people base their judgments on the pattern of his behavior. Recurring emotional outbursts, especially, are considered a sign of immaturity.

Indirectly, emotions affect social adjustments through their influence on the child's attitudes toward other people and the way he treats them. Frequent and intense emotional disturbances result in a preoccupation with self and with personal problems and feelings. The child then becomes self-bound and unable to establish affectional relationships with others.

Personality. Because of the close relationship between social adjustments and one's self-concept, heightened emotionality has a damaging effect on personality development. Children who are anxious tend to be dissatisfied with themselves and others. This leads them to use defense mechanisms to cover up their feelings of dissatisfaction or to project the blame for their failures on others.

Emotional Control

The *popular* concept of emotional control emphasizes suppression of overt responses to emotion-provoking stimuli. According to this concept, a person who has been aroused to anger stifles the reactions—facial, bodily, and verbal—that normally accompany anger and by so doing presents a picture of emotional calm. The more he can suppress these overt responses, the better emotional control he is judged to have.

The *scientific* concept of emotional control is very different from the popular concept. Using the word "control" as it is defined in any standard dictionary to mean "to exert restraining or directing influence over," the scientific concept of emotional control means to direct emotional energy into useful and socially approved channels of expression. True, the scientific concept does put emphasis on restraint, but this is not the same as suppression. While the person is restraining the overt expression of his emotion, he is also attempting to turn the energy engendered by his body as a preparation for action into useful and socially approved patterns of behavior. This is very different from the popular concept, which requires that the emotional energy be bottled up inside the person.

To achieve emotional control in the scientific meaning of the term, the individual must give as much attention to the mental aspect of an emotion as to the physical. Simply expressing the emotion in a socially acceptable form is not enough. The mental aspect of the emotion needs guidance too, lest it keep the emotional state alive and predispose the person to react emotionally to later stimuli which, of their own accord, would be incapable of arousing emotional responses. Just finding a socially acceptable way to react to anger, for example, does not guarantee that one will stop being angry. In fact, the more he thinks about the cause of the anger, the angrier he is likely to become, and the more convinced he will be that his anger is justified.

It is obvious, therefore, that the child must learn how to handle the stimuli that give rise to his emotions as well as the responses that normally accompany them. The child must be capable of assessing the stimulus and deciding whether an emotional reaction is justified or not. When, in addition to achieving emotional tolerance by learning to assess the situations that give rise to emotions he also learns to control his impulses to act out his feelings, he will achieve *emotional maturity.* As Kirkpatrick has pointed out, "The achievement of such control is the hallmark of adult behavior" (83).

WHY EMOTIONAL CONTROL IS IMPORTANT

The achievement of emotional control is imperative if the child is to develop normally. There are two major reasons why this is so. *First,* the social group expects every child to learn to control his emotions and it judges him in terms of his success. Although adults may be indulgent about emotional outbursts when the child is very young, they disapprove of such reactions when he grows older. He soon discovers that unbridled expression of the emotions will not be tolerated.

Second, once a pattern of emotional expression has been thoroughly learned, it is difficult to eliminate or control it. Conditioned responses do not extinguish themselves. They require an experimental process of extinction, even if the circumstances under which the learning took place have been forgotten. This is true in fear responses in which the child is conscious of only certain aspects of the experiences that originally conditioned him to react with fear. Once the response is well learned, getting rid of it or modifying it into a more socially approved or more healthful form is exceedingly difficult (93, 152).

Of the many techniques used to try to eliminate fears, those which have produced the best results include giving the child an opportunity to become acquainted with the feared stimulus of his own accord; leading him gradually into contact with the thing he fears; encouraging him to acquire skills that will be of specific aid in dealing with the feared situation; building up pleasant associations with the feared object; verbal explanations and reassurance, combined with a practical demonstration of the harmlessness of the feared object; social imitation in which the child is given an adult model of fearlessness; and an opportunity for self-expression which will lead to self-scrutiny and personal reorientation, thus resulting in a changed concept of self (77, 152).

EFFECTS OF EMOTIONAL CONTROL ON BEHAVIOR

The physical and mental preparation for action generated whenever an emotion is aroused can be released in a number of ways. One's usual way of responding will depend largely on what provides the greatest satisfaction, wins social approval, or avoids the disapproval of significant people. Of the many ways children release pent-up energy, the most common are shown in Box 9-11.

Several of the ways children commonly react to anger-provoking stimuli are shown in Figure 9-6. Since no one way of expressing a controlled emotion is always best, the child will choose the one that meets his needs and, if possible, at the same time gains social approval. Unless it uses up *all* the energy engendered by the emotion, however, there will be unfavorable aftereffects on the child's physical and mental well-being. Even the most constructive indirect expression of anger will not be adequate, for example, unless it clears the system of the energy produced by the anger. An emotional explosion may clear the system, but it fails to win the approval of the group. As a result, it does not give satisfaction.

Emotional Catharsis

A child cannot be expected to achieve maturity in emotional behavior any more than in other areas of

Box 9-11

COMMON WAYS OF RELEASING PENT-UP EMOTIONAL ENERGY

Moodiness

Moodiness is a drawn-out state of the emotions caused by bottling up emotional energy and allowing it to smolder. The unpleasant emotions are most likely to be controlled, so the moody child is morbid, sullen, reticent, or bad humored. He becomes listless, and works below his capacities, his interest in people and things wanes, and he becomes preoccupied with himself and his own feelings.

Substitute Responses

Emotional energy can be released by substituting a more socially acceptable response for the one normally associated with the emotion. When angry, the child may substitute name calling for hitting or kicking, or he may do something useful or constructive.

Displacement

In displacement, one directs his response toward a person, object, or animal unrelated to the stimulus. Instead of hitting and shouting at the person who angered him, the child attacks an innocent victim.

Regression

The most common indirect way of expressing thwarted emotions in childhood is regression—going back to earlier, perhaps infantile, forms of behavior. The jealous child may wet his bed or claim that he needs help in dressing.

Emotional Explosions

In emotional explosions, the child reacts violently to a seemingly trivial stimulus. When angry, he will have a temper tantrum. The older child knows he is expected to develop frustration tolerance, so his emotional explosions lead to feelings of guilt and inadequacy.

development. One can only expect him to show the progress normal for his age. *How* he controls his emotions is far more important than the fact that he merely controls them.

Unless the *physical* energy built up in preparation for action is released, body homeostasis will be upset. In the same way, unless the *mental* states that accompany the emotions are handled properly, they can lead to such unfavorable attitudes that the child will make poor personal and social adjustments.

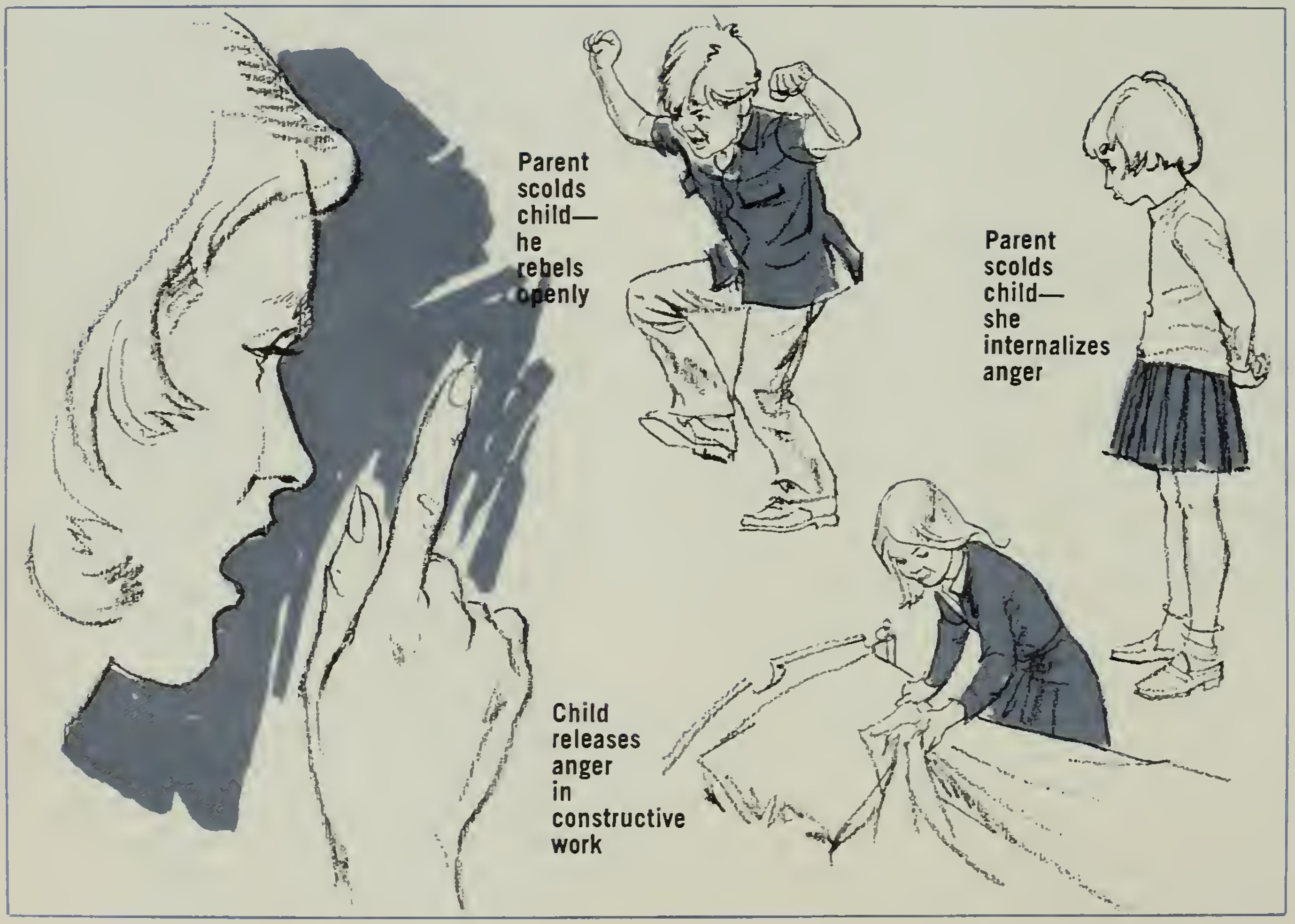
When the body is set for action, the stirred-up mental state—whether it takes the form of anxiety, jealousy, or hostility—is likely to prolong the physical agitation. That will prolong the mental turbulence. As a result, there is a circular cause-and-effect relationship which is likely to continue until something is done to end it. The needs that have been thwarted must be met either directly or indirectly. If the child cannot use up the energy in a direct expression of the emotion, he must get rid of it in an indirect way. Clearing the system of pent-up energy is known as *emotional catharsis.*

The need to clear the body of pent-up emotional energy was recognized as far back as the time of Hippocrates in ancient Greece, during the fourth century B.C. Not until around the turn of the present century, however, was it recognized that the need for emotional catharsis also applied to the mind.

MEANS OF EMOTIONAL CATHARSIS

Just letting off emotional steam may relieve the system of excess physical energy temporarily, but it will not necessarily change the child's point of view or remove

Figure 9–6. Three common ways of reacting to anger. (Adapted from M. E. Breckenridge and E. L. Vincent: Child development. *4th ed. Saunders, 1960. Used by permission.)*


Parent scolds child—he rebels openly
Parent scolds child—she internalizes anger
Child releases anger in constructive work

the source of emotional distress. A parallel may be found in the treatment of digestive disorders. When the body is being poisoned by failure to get rid of waste products. a laxative will purge the body of the accumulated waste. and the individual will feel better temporarily. Unless he gets at the cause of the trouble, however, he will soon experience accumulated waste products again and will be forced to resort to the use of laxatives again.

So it is with emotional energy. The fundamental principle of psychotherapy gives a clue to how one may go about effecting an emotional cartharsis that will clear both the mind and the body. By bringing to the surface the repressed causes of emotional disturbance, by analyzing them, by subjecting them to reality testing to see how justified they are, and then by finding satisfactory ways to give expression to the drives which have been thwarted, the child will change his attitudes and develop a more wholesome point of view.

Physical Catharsis. Any activity that uses up the energy generated by the bodily changes that accompany the emotions will serve as a catharsis for this energy and restore homeostasis. Among children, the three most common and most beneficial cathartic activities are strenuous exercise. laughing, and crying. These are not equally approved by the social group, however.

Strenuous activity, whether in play or work. is socially acceptable. The child can let off emotional steam by running. swimming. or playing ball as well as by cutting grass, shoveling snow, or using a hammer and saw. To achieve the desired cathartic effect, the activity must not only be socially acceptable but must also be satisfying to the individual. The child who is forced to mow the grass, for example, will not get the cathartic value from this activity that he would if he performed it voluntarily. His resentment will keep his emotional state alive instead of reducing it.

A good *cry* will, likewise, go a long way toward clearing the body of excess tension. The child soon discovers, however, that crying is not socially approved. Even if he cries in private, the tell-tale redness of his eyes may give him away. In addition, he feels guilty and ashamed for acting "like a baby" and knows that he would be ridiculed and scorned if others found out about it.

Much the same problem arises with *laughter*. Only if the child laughs when others laugh, at a joke or at a comic scene in the movies or on television, can he laugh loudly enough to get the emotional catharsis he needs without incurring social disapproval.

Mental Catharsis. To achieve mental catharsis, the child must change his attitudes toward the situations that give rise to his emotions. This means that he must learn emotional tolerance and gain insight into the causes of his anger, grief, fear, and so on. He is too inexperienced, however, to handle the problem without outside help.

Guidance is essential, but the child cannot benefit from it unless he is willing to communicate with others. He may communicate either indirectly through such techniques as doll-play therapy or directly through discussion and examination of the problem. No one can help him without knowing what is troubling him.

An older child who is unwilling to communicate with others may help himself to some extent by identifying with people or characters in books, movies, and television. Through this identification, he can gain insight into his own problems and thus learn how to reduce or eliminate the mental disturbances that keep his body stirred up (21, 36). Daydreaming may also serve this purpose, but it depends on whether the child uses his daydreams as an escape from unpleasant reality or as a constructive aid to understanding (142). This matter will be discussed in more detail in the chapter on creativity.

STUMBLING BLOCKS TO EMOTIONAL CATHARSIS

Most children can find a source of *physical* catharsis, but some, unfortunately, cannot. An unpopular child may have no one to play with. He then spends his playtime reading, daydreaming, or watching TV. A child with a physical handicap or overprotective parents will likewise be cut off from a ready source of catharsis. True, he could clear his system of pent-up energy by laughing or crying, but the child who lacks playmates finds little to laugh about, and although he may want to cry, he refrains because he knows it will bring social disapproval.

Sources of catharsis for the unwholesome *mental* states that develop when negative emotions are too tightly controlled are often very difficult to find. If a child can talk over his difficulties with a parent, teacher, or intimate friend who will react sympathetically and help him solve his problems, he has a ready source of mental catharsis. Some children, however, do not have intimate friends in whom they can confide. Others have such an authoritarian home or school environment that they are afraid to communicate their problems to parents or teachers.

Even if the environment is such that a child experiences few demands to control his emotions he should learn how to discharge excess emotional energy so that he will suffer minimum physical or psychological harm when control is needed. Box 9-12 contains a list of aids to emotional catharsis.

These aids suggest how one may encourage a child to learn to use emotional catharsis at an early age—before he develops the habit of controlling his emotions in ways that will win social approbation but take a heavy toll on physical and mental health. The child who learns to use emotional catharsis will gain satisfaction both from his emotions and from the approval of the social group.

Box 9-12

AIDS TO EMOTIONAL CATHARSIS

- Some strenuous physical exercise daily in either play or work.
- An understanding of how strenuous exercise aids physical and emotional well-being.
- The development of a sense of humor so that one can laugh even at oneself.
- An understanding that crying is not always babyish. It can be good for a child if he knows when and where to use it.
- A close, affectional relationship with at least one family member. A parent can help a child develop a more mature perspective on his problems.
- An intimate friend to whom one can confide troubles and verbalize complaints that he would hesitate to discuss with an older person.
- A willingness to talk over one's problems with a sympathetic person. Most children, unless discouraged from doing so, will talk freely about *everything*, including their problems.
- A respect on the part of others for the underlying causes of one's emotional arousal. When a child is afraid, there is a reason for it, and if others recognize that, the child will be willing to discuss his fear with them.

Highlights of Chapter 9

1. Emotions affect the child in many important ways. They add pleasure to everyday experiences, prepare the body for action, disrupt motor skills, serve as a form of communication, interfere with mental activity, act as sources of social and self evaluation, color the child's outlook on life, encourage or discourage social interaction, affect the child's typical mode of response, leave their mark on the child's facial expression, and affect the psychological climate of the environment.

2. The importance of the emotions in the child's life is shown by the effect of deprivation of affection, especially during the early years.

3. Emotional development follows a predictible pattern, though the rate of development varies for different children.

4. Emotional development comes from maturation and from three kinds of learning: trial-and-error, imitation, and conditioning.

5. Children's emotions differ from those of adults in their intensity, their frequency, their transitory nature, their individual response patterns, their changes in strength and their behavioral symptoms.

6. The common unpleasant emotions of childhood are fear, shyness, embarrassment, worry, anxiety, anger, jealousy, and grief.

7. The common pleasant emotions of childhood include affection, curiosity, and joy, including its milder forms, pleasure, delight, and happiness.

8. The dominant emotions in a child's life determine his temperament and this, in turn, affects his personal and social adjustment.

9. Emotional balance is essential to healthy personal and social adjustment because children must learn how to handle *all* emotions, not just pleasant ones.

10. Heightened emotionality, which shows itself in moodiness, nervous mannerisms, and a predisposition to overreact emotionally, comes from unfavorable physical, psychological, and environmental conditions.

11. Emotional control—the direction of emotional energy into useful and socially approved channels of expression—comes from learning how to handle the stimuli that give rise to the emotions as well as how to express emotional energy in socially approved patterns of behavior.

12. In emotional catharsis, pent-up physical energy can best be released in strenuous activity, laughing, and crying, while pent-up mental energy can best be released by communicating with others and thus getting a better perspective on the situation that gave rise to the emotion.

Bibliography

1. Alexander, I. E., and A. M. Adlerstein: Affective responses to the concept of death in a population of children and early adolescents. *J. genet. Psychol.*, 1958, **93,** 167–177.
2. Allman, T. S., and W. F. White: Birth-order categories as predictors of select personality characteristics. *Psychol. Rep.*, 1968, **22,** 857–860.
3. Allport, G. W.: *Pattern and growth in personality.* New York: Holt, 1961.
4. Altus, W. D.: Birth order and scholastic aptitude. *J. consult. Psychol.*, 1965, **29,** 202–205.
5. Ames, L. B., and F. L. Ilg: The developmental point of view with special reference to the principle of reciprocal neuromotor interweaving. *J. genet. Psychol.*, 1964, **105,** 195–209.
6. Anderson, R. E.: Where's Dad? Paternal deprivation and delinquency. *Arch. gen. Psychiat.*, 1968, **18,** 641–649.
7. Angelino, H., J. Dollins, and E. V. Mech: Trends in "fears and worries" of school children as related to socioeconomic status and age. *J. genet. Psychol.*, 1956, **89,** 263–276.
8. Arasteh, J. D.: Creativity and related processes in the young child: A review of the literature. *J. genet. Psychol.*, 1968, **112,** 77–108.
9. Archibald, H. C., D. Bell, C. Miller, and R. D. Tuddenham: Bereavement in childhood and adult psychiatric disturbance. *Psychosom. Med.*, 1962, **24,** 343–351.
10. Arthur, B., and M. L. Kemme: Bereavement in childhood. *J. child Psychol. Psychiat.*, 1964, **5,** 37–49.
11. Averill, J. R.: Grief: Its nature and significance. *Psychol. Bull.*, 1968, **70,** 721–748.
12. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in childhood*, 3d ed. Philadelphia: Saunders, 1966.
13. Banham, K. M.: Senescence and the emotions: A genetic theory. *J. genet. Psychol.*, 1951, **78,** 175–183.
14. Bateman, M. M., and J. S. Jensen: The effect of religious background on modes of handling anger. *J. soc. Psychol.*, 1958, **47,** 133–141.
15. Bayley, N.: Research in child development: A longitudinal perspective. *Merrill-Palmer Quart.*, 1965, **11,** 183–208.
16. Becker, D., and F. Margolin: How surviving parents handled their young children's adaptation to the crisis of loss. *Amer. J. Orthopsychiat.*, 1967, **37,** 753–757.
17. Bell, E. C.: Nutritional deficiency and emotional disturbances. *J. Psychol.*, 1958, **45,** 47–74.
18. Berecz, J. M.: Phobias of childhood: Etiology and treatment. *Psychol. Bull.*, 1968, **70,** 694–720.
19. Berkowitz, L.: Experimental investigations of hostility catharsis. *J. consult. clin. Psychol.*, 1970, **35,** 1–7.
20. Berlyne, D. E.: A theory of human curiosity. *Brit. J. Psychol.*, 1954, **45,** 180–191.
21. Bloomer, R. H.: Characteristics of portrayal and conflict and children's attraction to books. *Psychol. Rep.*, 1968, **23,** 99–106.
22. Bossard, J. H. S., and E. S. Boll: *The sociology of child development*, 4th ed. New York: Harper & Row, 1966.
23. Bousfield, W. A., and W. D. Orbison: Ontogenesis of emotional behavior. *Psychol. Rev.*, 1952, **59,** 1–7.
24. Bowerman, C. E., and J. W. Kinch: Changes in family and peer orientation of children between the fourth and tenth grades. *Soc. Forces*, 1959, **37,** 206–211.
25. Bowlby, J., M. Ainsworth, M. Boston, and D. Rosenbluth: The effects of mother-child separation: A follow-up study. *Brit. J. med. Psychol.*, 1956, **29,** 211–247.
26. Bronson, G.: Critical periods in human development. *Brit. J. med. Psychol.*, 1962, **35,** 127–133.
27. Bronson, G. W.: The development of fear in man and other animals. *Child Develpm.*, 1968, **39,** 409–431.
28. Bronson, G. W.: Fear of visual novelty: Developmental patterns in males and females. *Develpm. Psychol.*, 1970, **2,** 33–40.
29. Bronzaft, A. L.: Test anxiety, social mobility, and academic achievement. *J. soc. Psychol.*, 1968, **75,** 217–222.
30. Caldwell, B. M., and L. Hersher: Mother-infant interaction during the first year of life. *Merrill-Palmer Quart.*, 1964, **10,** 119–128.
31. Cantor, G. N.: Children's "like-dislike" ratings of familiarized and nonfamiliarized visual stimuli. *J. exp. Child Psychol.*, 1968, **6,** 651–657.
32. Casler, L.: Maternal deprivation: A critical review of the literature. *Monogr. Soc. Res. Child Develpm.*, 1961, **26,** no. 2.
33. Castell, R.: Effect of familiar and unfamiliar environments on proximity behavior of young children. *J. exp. Child Psychol.*, 1970, **9,** 342–347.
34. Chatterjee, G. P.: The effects of maternal deprivation on the development of child's personality. *Psychol. Ann.*, 1966–69, **1,** 44–46.
35. Chittick, E. V., and P. Himelstein: The manipulation of self-disclosure. *J. Psychol.*, 1967, **65,** 117–121.
36. Cianciolo, P. J.: Children's literature can affect coping behavior. *Personnel Guid. J.*, 1965, **43,** 897–903.
37. Coser, R. L.: Some social functions of laughter. *Hum. Relat.* 1959, **12,** 171–182.

38. Crandall, V. C., and J. Gozau: The social desirability responses of children of four religious-cultural groups. *Child Develpm.,* 1969, **40,** 751–762.

39. Croake, J. W.: Fears of children. *Hum. Develpm.,* 1969, **12,** 239–247.

40. Davis, A., and R. J. Havighurst: *Father of the man.* Boston: Houghton Mifflin, 1947.

41. Davitz, J. R.: Contributions of research with children to a theory of maladjustment. *Child Develpm.,* 1958, **29,** 3–7.

42. Doris, J.: Test-anxiety and blame-assignment in grade school children. *J. abnorm. soc. Psychol.,* 1959, **58,** 181–190.

43. Douglas, J. W. B., and J. M. Ross: The later educational progress and emotional adjustment of children who went to nursery schools or classes. *Educ. Res.,* 1964, **7,** 73–80.

44. Douglas, V. I.: Children's responses to frustration: A developmental study. *Canad. J. Psychol.,* 1965, **19,** 161–170.

45. Dunbar, F.: Homeostasis during puberty. *Amer. J. Psychiat.,* 1958, **114,** 673–682.

46. Earle, A. M., and B. V. Earle: Early maternal deprivation and later psychiatric illness. *Amer. J. Orthopsychiat.,* 1961, **31,** 181–186.

47. Elliott, F.: Shy middle graders. *Elem. Sch. J.,* 1968, **69,** 296–300.

48. Elliott, R.: Physiological activity and performance: A comparison of kindergarten children with young adults. *Psychol. Monogr.,* 1964, **78,** no. 10.

49. Faw, V.: Learning to deal with stress situations. *J. educ. Psychol.,* 1957, **48,** 135–144.

50. Fawl, C. L.: A developmental analysis of the frequency and causal types of disturbance experienced by children. *Merrill-Palmer Quart.,* 1962, **8,** 12–18.

51. Feshbach, S.: The drive-reducing function of fantasy behavior. *J. abnorm. soc. Psychol.,* 1955, **50,** 3–11.

52. Fleener, D. E., and R. B. Cairns: Attachment behaviors in human infants: Discriminative vocalization on maternal separation. *Develpm. Psychol.,* 1970, **2,** 215–223.

53. Fraser, D. C.: Environmental stress and its effect on performance. *Occup. Psychol.,* 1957, **31,** 248–255.

54. Frost, B. P.: Anxiety and educational achievement. *Brit. J. educ. Psychol.,* 1968, **38,** 293–301.

55. Garrison, K. C.: *Growth and development,* 2d ed. New York: Longmans, 1959.

56. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.

57. Gilbert, D. C.: The young child's awareness of affect. *Child Develpm.,* 1969, **40,** 629–640.

58. Goode, W. J.: The theoretical importance of love. *Amer. sociol. Rev.,* 1959, **24,** 38–47.

59. Gotts, E. E.: A note on cross-cultural by age-group comparisons of anxiety scores. *Child Develpm.,* 1968, **39,** 945–947.

60. Greenwood, E.: The importance of play. *Menninger Quart.,* 1968, **22,** 22–28.

61. Gregory, I.: Studies of parental deprivation in psychiatric patients. *Amer. J. Psychiat.,* 1958, **115,** 432–442.

62. Hader, M.: The importance of grandparents in family life. *Family Process,* 1965, **4,** 103–109.

63. Harlow, H. F.: The nature of love. *Amer. Psychologist,* 1958, **13,** 673–685.

64. Harris, D. B., and C. Tseng: Children's attitudes toward peers and parents as revealed by sentence completions. *Child Develpm.,* 1957, **28,** 401–411.

65. Hartley, R. E.: Some safety valves in play. *Child Study,* 1957, **34,** 12–14.

66. Hartup, W. W.: Nurturance and nurturance-withdrawal in relation to the dependency behavior of preschool children. *Child Develpm.,* 1958, **29,** 191–201.

67. Hazard, W. R.: Anxiety and preference for television fantasy. *Journalism Quart.,* 1967, **47,** 461–469.

68. Heinicke, C. H.: Some effects of separating two-year-old children from their parents. *Hum. Relat.,* 1956, **9,** 105–176.

69. Hicks, N.: Doctors study link between changes in body chemistry and depression. *The New York Times,* Dec. 8, 1969.

70. Hicks, N.: Drugs to fight depression. *The New York Times,* Dec. 14, 1969.

71. Holt, R. R.: On the interpersonal and intrapersonal consequences of expressing or not expressing anger. *J. consult. clin. Psychol.,* 1970, **35,** 8–12.

72. Horowitz, E.: Reported embarrassment memories of elementary school, high school and college students. *J. soc. Psychol.,* 1962, **56,** 317–325.

73. Horowitz, F. D.: The relationship of anxiety, self-concept, and sociometric status among fourth, fifth, and sixth grade children. *J. abnorm. soc. Psychol.,* 1962, **65,** 212–214.

74. Hutt, C.: Curiosity in young children. *Science J.,* 1970, **6,** 68–71.

75. Inselberg, R. M.: The causation and manifestations of emotional behavior in Filipino children. *Child Develpm.,* 1958, **29,** 249–254.

76. Jackson, E. L.: Situation complexity and young children's curiosity. *Dissert. Abstr., Intern.,* 1970, **30** (10-A), 4548.

77. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

78. Jones M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36,** 899–911.

79. Jourard, S. M.: Age trends in self-disclosure. *Merrill-Palmer Quart.,*1961, **7,** 191–197.

80. Kaffman, M.: Evaluation of emotional disturbance in 403 Israeli kibbutz children. *Amer. J. Psychiat.,* 1961, **117,** 732–738.

81. Kagan, J.: Socialization of aggression and the perception of parents in fantasy. *Child Develpm.,* 1958, **29,** 311–320.

82. Kennedy, W. A.: School phobia: Rapid treatment of fifty cases. *J. abnorm. Psychol.,* 1965, **70,** 285–289.

83. Kirkpatrick, M. E.: The mental hygiene of adolescence in the Anglo-American culture. *Ment. Hyg., N. Y.,* 1952, **36,** 394–403.

84. Koch, H. L.: The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. *Monogr. Soc. Res. Child Develpm.,* 1960, **25,** no. 4.

85. L'Abate, L.: Personality correlates of manifest anxiety in children.

J. consult. Psychol., 1960, **24**, 342–348.

86. Lakin, M.: Personality factors in mothers of excessively crying (colicky) infants. *Monogr. Soc. Res. Child Develpm.*, 1957, **22**, no. 1.

87. Lapouse, R., and M. A. Monk: Fears and worries in a representative sample of children. *Amer. J. Orthopsychiat.*, 1959, **29**, 803–818.

88. Lawson, R., and M. H. Marx: Frustration: Theory and experiment. *Genet. Psychol. Monogr.*, 1958, **27**, 393–464.

89. Lazar, E.: Children's perception of other children's fears. *J. genet. Psychol.*, 1969, **114**, 3–11.

90. Leventhal, T., and M. Sills: Self-image in school phobia. *Amer. J. Orthopsychiat.*, 1964, **34**, 685–695.

91. Levin, H., and V. F. Turgeon: The influence of the mother's presence on children's doll play aggression. *J. abnorm. soc. Psychol.*, 1957, **55**, 304–308.

92. Levinson, B. M.: The inner life of the extremely gifted child, as seen from the clinical setting. *J. genet. Psychol.*, 1961, **99**, 83–88.

93. Levy, D. M.: The infant's earliest memory of inoculation: A contribution to public health procedures. *J. genet. Psychol.*, 1960, **96**, 3–46.

94. Levy, E.: Children's behavior under stress and its relation to training by parents to respond to stress situations. *Child Develpm.*, 1959, **30**, 307–324.

95. Lindzey, G., D. T. Lykken, and H. D. Winston: Infantile trauma, genetic factors, and adult temperament. *J. abnorm. soc. Psychol.*, 1960, **61**, 7–14.

96. Lintz, L. M., R. H. Starr, and G. R. Medinnus: Curiosity rewards in children. *Psychol. Rep.*, 1965, **16**, 1222.

97. Longstreth, L. E.: Birth order and avoidance of dangerous activities. *Develpm. Psychol.*, 1970, **2**, 154.

98. Lövaas, O. I.: Effect of exposure to symbolic aggression on aggressive behavior. *Child Develpm.*, 1961, **32**, 37–44.

99. Maas, H. S.: Preadolescent peer relations and adult intimacy. *Psychiatry*, 1968, **31**, 161–172.

100. Maccoby, E. E., E. M. Dowley, G. W. Hagen, and R. Degerman: Activity level and intellectual functioning in normal preschool children. *Child Develpm.*, 1965, **36**, 761–770.

101. Macfarlane, J., L. Allen, and M. P. Honzik: *A developmental study of behavior problems in normal children between twenty-one months and fourteen years.* Berkeley: University of California Press, 1954.

102. Mahoney, S. M.: The laughter of children in kindergarten: Associated conditions and teachers' awareness and reaction to this laughter. *Dissert. Abstr., Intern.*, 1970, **30** (9-A), 3641.

103. Mallick, S. K., and B. R. McCandless: A study of catharsis of aggression. *J. Pers. soc. Psychol.*, 1966, **4**, 591–596.

104. Marshall, H. R.: Relations between home experiences and children's use of language in play interaction with peers. *Psychol. Monogr.*, 1961, **75**, no. 5.

105. Martin, M. C.: Helping children cope with sorrow. *Parents' Mag.*, Aug., 1970, pp. 42–43, 61.

106. Maurer, A.: What children fear. *J. genet. Psychol.*, 1965, **106**, 265–277.

107. Maw, W. H., and E. W. Maw: Nonhomeostasis experiences as stimuli of children with high curiosity. *Calif. J. educ. Res.*, 1961, **12**, 57–61.

108. Maw, W. H., and E. M. Maw: Children's curiosity and parental attitudes. *J. Marriage & Family*, 1966, **28**, 343–345.

109. Maw, W. H., and E. W. Maw: Self-concepts of high- and low-curiosity boys. *Child Develpm.*, 1970, **41**, 123–129.

110. McReynolds, P., M. Acker, and M. C. Pietila: The relation of object curiosity to adjustment in children. *Child Develpm.*, 1961, **32**, 393–400.

111. Medinnus, G. R., and J. M. Love: The relation between curiosity and security in preschool children. *J. genet. Psychol.*, 1965, **107**, 91–98.

112. Messer, S.: The effect of anxiety over intellectual performance on reflection-impulsivity in children. *Child Develpm.*, 1970, **41**, 723–735.

113. Modigliani, A.: Embarrassment and embarrassability. *Sociometry*, 1968, **31**, 313–328.

114. Moore, T.: Stress in normal childhood. *Hum. Relat.*, 1969, **22**, 235–250.

115. Morgan, C. T.: *Physiological psychology*, 3d ed. New York: McGraw-Hill, 1965.

116. Moulton, R.: Oral and dental manifestations of anxiety. *Psychiatry*, 1955, **18**, 261–276.

117. Moustakas, C. E.: Emotional adjustment and the play therapy process. *J. genet. Psychol.*, 1955, **86**, 79–99.

118. Munro, A.: Parent-child separation: Is it really a cause of psychiatric illness in adult life? *Arch. gen. Psychiat.*, 1969, **20**, 598–604.

119. Nakamura, C. Y.: The relationship between children's expressions of hostility and methods of discipline exercised by dominant and overprotective parents. *Child Develpm.*, 1959, **30**, 109–117.

120. *New York Times* Report: Tantrums called key to adult life. *The New York Times,* June 22, 1969.

121. Nighswander, J. K., and G. R. Mayer: Catharsis: A means of reducing elementary school students' aggressive behavior? *Personnel Guid. J.*, 1969, **47**, 461–466.

122. Paivio, A., and W. E. Lambert: Measures and correlates of audience anxiety ("stage fright"). *J. Pers.* 1959, **27**, 1–17.

123. Patterson, G. R., and D. Anderson: Peers as social reinforcers. *Child Develpm.*, 1964, **35**, 951–960.

124. Pedersen, D. M., and K. L. Higbee: Self-disclosure and relationship to the target person. *Merrill-Palmer Quart.*, 1969, **15**, 213–220.

125. Pielstick, N. L., and A. B. Woodruff: Exploratory behavior in children. *Psychol. Rep.*, 1968, **22**, 515–531.

126. Pratt, K. J.: Motivation and learning in medieval writings. *Amer. Psychologist*, 1962, **17**, 496–500.

127. Provence, S.: Disturbed personality development in infancy: A comparison of two inadequately nurtured infants. *Merrill-Palmer Quart.,* 1965, **11,** 149–170.

128. Rathban, C., H. McLaughlin, C. Bennett, and J. A. Carland: Later adjustment of children following radical separation from family and culture. *Amer. J. Orthopsychiat.,* 1965, **35,** 604–609.

129. Rheingold, H. L.: The measurement of maternal care. *Child Develpm.,* 1960, **31,** 565–575.

130. Ricciuti, H. N.: Social and emotional behavior in infancy: Some developmental issues and problems. *Merrill-Palmer Quart.,* 1968, **14,** 82–100.

131. Russell, G. W.: Human fears: A factor analytic study of three age levels. *Genet. Psychol. Monogr.,* 1967, **76,** 141–162.

132. Sadler, W. A.: Creative existence: Play as a pathway to personal freedom and community. *Humanitas,* 1969, **5,** 57–79.

133. Sattler, J. M.: A theoretical, developmental and clinical study of embarrassment. *Genet. Psychol. Monogr.,* 1965, **71,** 19–59.

134. Saul, L. J., and S. E. Pulver: The concept of emotional maturity. *Int. J. Psychiat.,* 1966, **2,** 446–460.

135. Scarr, S., and P. Salapatek: Patterns of fear development during infancy. *Merrill-Palmer Quart.,* 1970, **16,** 53–90.

136. Schaeffer, E. S., and N. Bayley: Maternal behavior, child behavior and their intercorrelation from infancy through adolescence. *Monogr. Soc. Res. Child Develpm.,* 1963, **28,** no. 3.

137. Schaeffer, H. R., and P. E. Emerson: The development of social attachments in infancy. *Monogr. Soc. Res. Child Develpm.,* 1964, **29,** no. 3.

138. Schalon, C. L.: Effect of self-esteem upon performance following failure stress. *J. consult. clin. Psychol.,* 1968, **32,** 497.

139. Sears, R. R., E. E. Maccoby, and H. Levin: *Patterns of child rearing.* New York: Harper & Row, 1957.

140. Shaffer, L. F., and E. J. Shoben: *The psychology of adjustment,* 2d ed. Boston: Houghton Mifflin, 1956.

141. Siegel, S. M.: The relationship of hostility to authoritarianism. *J. abnorm. soc. Psychol.,* 1956, **52,** 368–372.

142. Singer, J. L.: The importance of daydreaming. *Psychol. Today,* 1968, no. 1, 18–27.

143. Skard, A. G.: Maternal deprivation: The research and its implications. *J. Marriage & Family,* 1965, **27,** 333–343.

144. Smock, C. D., and B. G. Holt: Children's reactions to novelty: An experimental study of "curiosity motivation." *Child Develpm.,* 1962, **33,** 631–642.

145. Stagner, R. M.: *Psychology of personality,* 3d ed. New York: McGraw-Hill, 1961.

146. Stevenson, I.: Physical symptoms occurring with pleasurable emotional states. *Amer. J. Psychiat.,* 1970, **127,** 175–179.

147. Taylor, A.: Institutionalized infants' concept formation ability. *Amer. J. Orthopsychiat.,* 1968, **38,** 110–115.

148. Thompson, D. F., and L. Meltzer: Communication of emotional intent by facial expression. *J. abnorm. soc. Psychol.,* 1964, **68,** 129–135.

149. Tiktin, S., and W. W. Hartup: Sociometric status and the reinforcing effectiveness of children's peers. *J. exp. Child Psychol.,* 1965, **2,** 306–315.

150. Tryon, A. F.: Thumbsucking and manifest anxiety: A note. *Child Develpm.,* 1968, **39,** 1159–1163.

151. Unger, H. E.: The feeling of happiness. *Psychology,* 1970, **7,** 27–33.

152. Watson, J. B., and R. R. Raynor: Conditioned emotional reactions. *J. exp. Psychol.,* 1920, **3,** 1–4.

153. Wayne, D.: The lonely school child. *Amer. J. Nurs.,* 1968, **68,** 774–777.

154. Weiss, J. H.: Birth order and physical stress response. *Child Develpm.,* 1970, **41,** 461–470.

155. Williams, F., and J. Tolch: Communication by facial expression. *J. Commun.,* 1965, **15,** 17–27.

156. Worchel, P.: Catharsis and the relief of hostility. *J. abnorm. soc. Psychol.,* 1957, **55,** 238–243.

157. Yarrow, L. J.: Research in dimensions of early maternal care. *Merrill-Palmer Quart.,* 1963, **9,** 101–114.

158. Zeligs, R.: Children's attitudes toward annoyance. *J. genet. Psychol.,* 1962, **101,** 255–266.

159. Ziv, A., and H. Shauber: Contribution to a cross-cultural study of manifest anxiety in children. *Hum. Develpm.,* 1969, **12,** 178–191.

AUL MICHAEL

CHAPTER TEN Social Development

LEARNING TO BE A SOCIAL PERSON does not come overnight. The child learns in cycles, with a period of rapid improvement followed by a plateau in which there is little improvement or even by a phase in which there is regression to lower levels of behavior. How soon the child recovers lost ground or rises from the plateau depends largely upon the strength of his motivation.

When childhood comes to an end, most children are far from satisfied with the progress they have made in social development. This is true even when their development has been normal. Studies of the sources of unhappiness reported by adolescent boys and girls put great emphasis on social problems. Adolescents feel, for example, that they are far from the goal of learning how to get along with people, how to treat friends to avoid quarrels and the breakup of friendships, how to be at ease in social situations, and how to develop their leadership qualities (4, 35, 65).

If the child develops unfavorable behavior patterns or unfavorable attitudes toward people and social activities, it is possible that they can be modified as he grows older and discovers what a handicap they are. It is questionable, however, that they can ever become as favorable as they might have been, had the child's early social experiences given him a better start.

Meaning of Social Development

Social development means acquisition of the ability to behave in accordance with social expectations. It has been defined by Child as the "process by which an individual, born with potentialities of enormously wide range, is led to develop actual behavior which is confined within a much narrower range—the range of what is customary and acceptable for him according to the standards of his group" (23).

Becoming socialized involves three processes which, although they are separate and distinct, are so closely interrelated that failure in any one of them will lower the person's level of socialization.

The *first* process is the development of behavior approved by the social group. As every social group has its own standard of what is proper, the child must know what that is and model his own behavior along the approved lines.

The *second* process in socialization is the playing of approved social roles—the patterns of customary behavior defined and expected by members of the social group. Every social group has its own recognized patterns of behavior for members of the two sexes as well as for different areas of life. There are, for example, prescribed roles for parents and children and for teachers and pupils.

The *third* process is the development of social attitudes so that the person likes people and social activities. He is a friendly person whose behavior reflects his favorable attitudes toward people.

Relatively few people, either children or adults, totally succeed in all three of these processes. Most, however, wish to win social approval and, therefore, they conform to group expectations. They do so by learning to use fronts to cover up thoughts and feelings that might be considered unacceptable. They learn not to look bored, even though they may be bored; not to talk about tabooed subjects in the presence of those who disapprove; and not to look pleased when someone they dislike is hurt.

SOCIALIZATION VERSUS CONFORMITY

To many people, "socialization" and "conformity" mean the same thing—that a person must be slavishly conventional in his behavior and attitudes if he is to be an accepted member of the social group. Within limits, *this is correct in childhood.* While the child is learning how to become a social person, he must have a stable model to copy, and he must copy it with a minimum of variation. After learning what the social group expects of him, he may vary his behavior to fit his own needs and desires, provided he does not vary it too much or disregard social norms.

At no age is rugged individualism accepted. If a person does not want to conform to group standards, the group does not want to accept him as a member. A slight variation, however, provided the group regards it as superior to the accepted pattern, not only is acceptable but will be imitated. Members of the group will make this deviant pattern their own.

SOCIAL AND NONSOCIAL PEOPLE

The terms "social" and "nonsocial" are so loosely used in everyday language that it is often difficult to know exactly what the speaker means. Is a nonsocial person unsocial or antisocial? Is a social person truly social or only gregarious? To distinguish between these different categories, the accepted definitions, which are the ones used in this text, are given in Box 10–1.

In childhood, there is a strong drive to be with others and to be accepted by them. When this need is not met, the child will be unhappy. When it is met, he will be satisfied and joyful. Some children, for example, can be satisfied with gregarious behavior, but most are happy only when they are accepted members of a social group. Some children derive satisfaction from violating social expectations, but when they discover that they are rejected by the members of the group for such behavior, their satisfaction is short-lived. Anything which interferes with socialization and acts as a barrier to acceptance by the group will lead to unhappiness.

Social Expectations

What the social group expects of the child is defined in terms of developmental tasks, or learning experiences that have been found to be appropriate for different age levels (58). Before he enters school, for instance, the child is expected to relate emotionally by showing affection for, and interest in, his parents and siblings and other people; he is expected to distinguish right from wrong in simple situations and act according to the socially approved pattern in these situations. During his elementary school years, the child is expected to learn to get along with his age-mates, to play an appropriate sex role, and to conform to more complex standards of right and wrong.

VARIATIONS IN SOCIAL EXPECTATIONS

One of the major difficulties the child encounters in learning approved social behavior is that each of the subcultures of society has its own definition of what is acceptable. Aggressiveness, for example, is approved by some subcultures and disapproved by others. Subcultures also differ in the standards they set for children of different ages and for members of the two sexes.

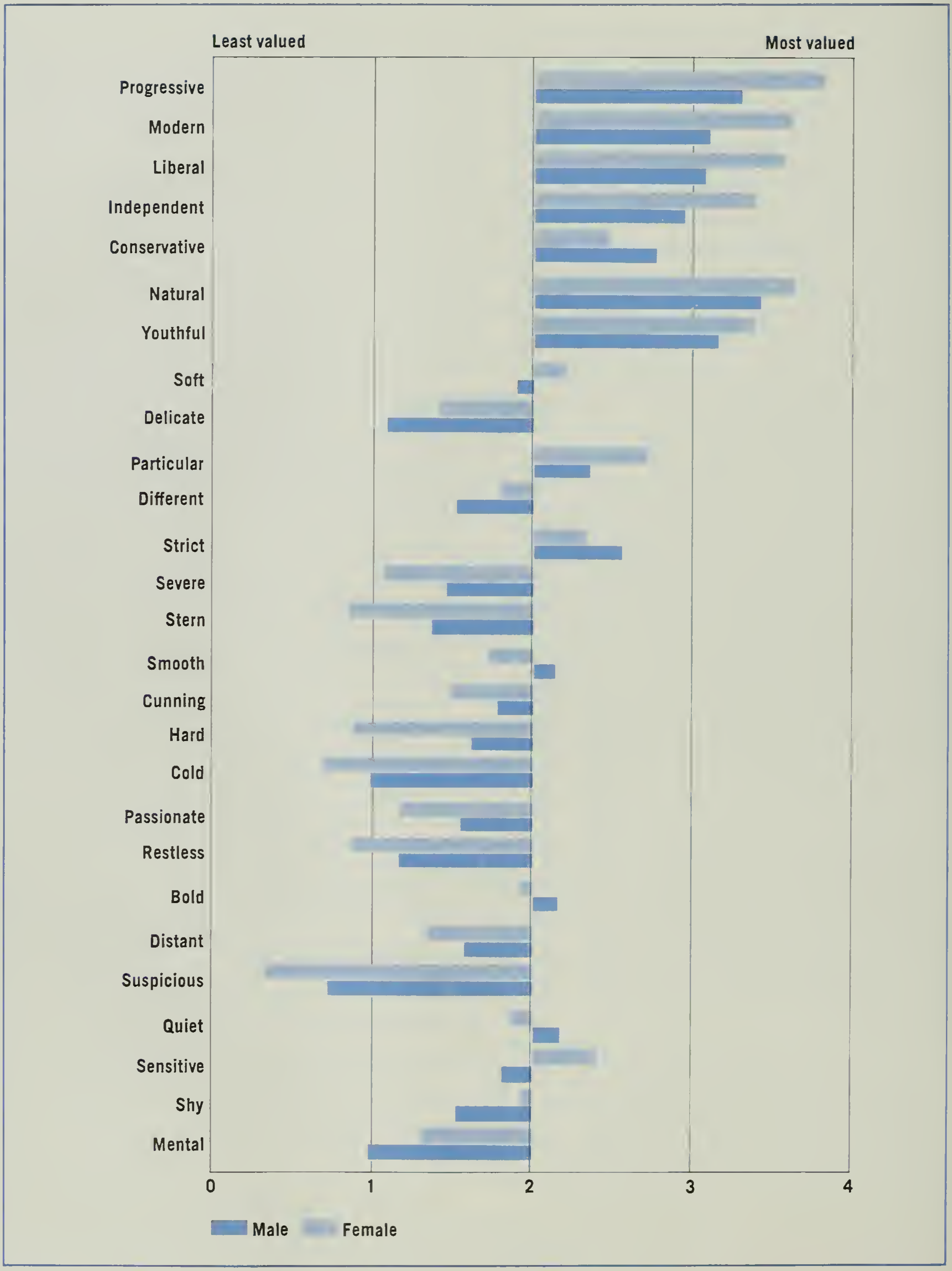
Within a subculture, accepted patterns vary from one age group to another. Girls may be tomboys if they like during the preschool years, but they discover long before childhood is over that they must be girls in both appearance and behavior if they want to avoid ridicule and social disapproval. Boys must learn a different pattern. As Koch has pointed out, "It is more serious in our culture for the boy to deviate from the male type than for the girl to deviate from the female type" (69). A man is known by the company he keeps, and our culture considers it important that most of a boy's companions be male. While the social group may tolerate a tomboy, however, *toleration does not mean social approval.* It means merely the absence of social rejection.

Although the norms of sex-appropriate behavior vary somewhat from group to group, certain fairly universal stereotypes are in the American culture. Boys, on the whole, are aware of this earlier because sex-inappropriateness is less accepted in boys. At times, peer group pressure is stronger than that of the larger group. A boy who is sympathetic, kind, and thoughtful of others may be admired by adults, but he learns very quickly that members of the peer group think he is a "sissy." That is why boys put such a high value on masculinity. Similarly, a girl who is aggressive may be regarded by her parents as a potential leader, but the peer group will dislike her because she is too bossy. Aggressiveness in a boy, on the other hand, is usually

Box 10-1

SOCIAL AND NONSOCIAL PEOPLE

- A *social* person is one whose behavior reflects success in the three processes of social development. He behaves in an approved manner, plays the role society prescribes for him, and has favorable attitudes toward people and social activities. He fits into the group with which he wishes to be identified and is accepted as a group member. By contrast, a *nonsocial* person is one whose behavior does not reflect success in these three processes.
- A *gregarious* person is a social person who craves the presence of others and is lonely when by himself. He is satisfied merely to be with others, regardless of the nature of the contact.
- An *unsocial* person is a nonsocial person, who is ignorant of what the social group expects and, as a result, behaves in a manner that falls short of social expectations. Because of this, he is not accepted by the group and is forced to spend much of his time in solitude.
- An *antisocial* person is a nonsocial person who knows what the social group expects but, because of an antagonistic attitude toward people, violates the group's mores.


Least valued
Most valued
Progressive
Modern
Liberal
Independent
Conservative
Natural
Youthful
Soft
Delicate
Particular
Different
Strict
Severe
Stern
Smooth
Cunning
Hard
Cold
Passionate
Restless
Bold
Distant
Suspicious
Quiet
Sensitive
Shy
Mental
0
1
2
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Male
Female

admired by other boys; they regard him as daring and often choose him as a leader. By the time children enter school, they are well aware of what their peers expect for members of each sex. As they grow older, their concept of what is sex appropriate comes to be more and more like that of adults (15). Figure 10–1 shows the adult-approved qualities for members of the two sexes.

DEGREE OF CONFORMITY TO SOCIAL EXPECTATIONS

How much conformity a particular social group demands of its members before it will accept them varies. In some cultures, a person may retain some individual qualities and still be acceptable. In others, no deviation is approved. By control of the environment and a uniform method of training in the home, school, and community, an attempt is made to mold every child into a prescribed pattern.

The child who grows up in a culture which tolerates some individuality will be accepted by the group even though his behavior is not a photostat of that of other children of his age. In the regimented culture, a nonconformist of any degree will be punished by social rejection. The more clearly defined the cultural group's concept of the "ideal person"—the person who will fit best into the pattern of life prescribed for the members of the group—the greater the conformity required for social acceptance. This is true of the present-day Soviet and Israeli cultures.

Some specific examples of variations in demand for conformity will show how cultural groups differ. A cultural group that places high value on education as a stepping-stone to upward social mobility, as is true of many Jewish families, expects great conformity to school standards as a means to the desired end. Members of such a group develop this conformity in their children by using more authoritarian child-training methods than are used in families where less emphasis is placed on social mobility. Because of the high value middle-class American families place on social mobility, they expect greater conformity to socially approved standards of behavior on the part of their children than middle-class English families, who are less oriented toward upward mobility. In addition, the indifference to outside criticism by the English results in less pressure for conformity on the part of children than is found among American families, who, on the whole, are anxious to avoid criticism.

Figure 10–1. Adult-approved sex-appropriate qualities showing those more valued by men and those more valued by women. (Adapted from E. M. Bennett and L. R. Cohen, Men and women: personality patterns and contrasts, Genet. Psychol. Monogr., *1959,* **59**, *101–155. Used by permission.)*

Variations in standards of conformity are by no means the only source of difficulty the child experiences in trying to satisfy social expectations. There are many others, some of which are as great as the variations described above. The most important are given in Box 10–2.

CONSEQUENCES OF NONCONFORMITY

The social group judges and accepts or rejects the individual on the basis of his ability or willingness to come up to its expectations. The degree to which he encounters social rejection will vary according to his deviation from the group's accepted standard.

Living up to group expectations is essential not only to social acceptance but also to self-acceptance. A child cannot have a favorable opinion of himself when he knows that he has failed to do what others expect of him and has, as a result, lost their esteem. The older child is especially sensitive to social interactions. He knows whether other people like him, dislike him, or ignore him.

Some children become social misfits through no fault of their own. Others could make better social adjustments than they do, but they have little motivation to do so. Either they derive too little satisfaction from social activities or they find other pursuits more satisfying. If they refuse to conform to social expectations and do as they please, they must face criticism, scorn, and rejection.

The only way a nonconformist can improve his status in the group is to sacrifice some of his individualism and learn to conform, whether he approves of the group's expectations or not. If being an individualist means more to him than social acceptance, he must be prepared to pay the price for his individualism, if being accepted by the group means more, he must be willing to pay the price demanded by the social group.

Being willing to conform to group expectations is not enough. The child must know what the expectations are and how he must behave to fulfill them. A child whose home training stresses the values of the group, emphasizes conformity, and provides a model to imitate—either parents or older siblings—will not find it difficult to learn to conform.

Essentials of Socialization

What the child's attitudes toward people and social experiences will be and how well he will get along with other people will depend largely on his learning experiences during the early, formative years. Whether he will learn to conform to social expectations or not will depend upon three factors.

Box 10-2

DIFFICULTIES IN CONFORMING TO SOCIAL EXPECTATIONS

- An inherent tendency may make conformity to social expectations difficult, if not impossible. A boy with a small build and weak musculature is incapable of conforming in a culture where the male ideal is a well-built athlete.
- A child who has been molded to fit the demands of one cultural group may have difficulty conforming if he is shifted to another group. A child from an immigrant or socially mobile family may encounter this problem.
- Conformity to social expectations is difficult if the child does not approve of the group's ideals.
- The child who has learned the proper behavior for one age level may find it difficult to adjust to the approved pattern for an older level.
- The child may be confused about what the approved pattern of behavior is. A girl, for example, may not know that she is "too old" to be a tomboy.
- The child may be deprived of opportunities to learn socially approved patterns of behavior. A boy without a father may have no male model to imitate.
- A child will have little motivation to follow the approved pattern if social acceptance is less important to him than following his own interests.

First, ample opportunities for socializing are essential because a child cannot learn to live socially with others if he spends most of his time alone. Each year, he needs more opportunities to be not only with children of his own age and level of development but also with adults of different ages and backgrounds. Too much social participation, however, may be harmful if it deprives the child of opportunities to develop inner resources which will enable him to be happy when circumstances force him to be alone.

Second, the child will learn to be social only if he is motivated to do so. Motivation depends largely on how much satisfaction the child derives from social activities. If he enjoys his contacts with people, he will want to repeat them; if he does not, he will tend to shun social situations. If he is anxious to be accepted by others, his motivation will be great; if he does not care about acceptance or feels that there is little or no chance of being accepted, his motivation will be low. Social deprivation of short duration tends to increase the child's motivation to win the attention and affection of others. Prolonged social deprivation makes the child afraid to try to establish social contacts.

Third, an effective method of learning under guidance is essential. By *trial and error,* the child learns some of the behavior patterns necessary for good social adjustment. He also learns by *role practice,* that is, by imitating a person he identifies with. He will learn more quickly and the end results will be better, however, if he is *taught* by a person who can guide and direct his learning and choose his associates so that he will have good models to imitate.

Should all these factors be favorable, the chances are that the child will develop into a social person. Should any of them be unfavorable, the chances are that he will be less social than other children his age or will become unsocial or even antisocial.

A nursery school, kindergarten, or organized play group where there are many children of the same level of development and where there is guidance in social behavior will provide excellent opportunities for socializing. It will also motivate the child to try to live up to social expectations so that he can be sure of acceptance by the group. The learning experiences provided by such an environment will contribute to the child's socialization. As a result, he will spend less time in solitary activities and more in interactions with others (104). Increases in interactions with peers and with teachers are shown in Figure 10-2.

Indiscriminate sociability, or being with others merely for the sake of social contact regardless of congeniality of interests, does little to develop healthy social attitudes. Even worse, the child who craves companionship of any kind just to avoid being alone becomes unstable in his interests and values. He changes his personality to suit the child or adult he is with in the hope of winning acceptance. He thus tends to be highly suggestible and easily influenced by anyone with whom he happens to come in contact.

Importance of Early Social Experiences

Since social or unsocial patterns of behavior are established during the formative childhood years, early social experiences largely determine what sort of adult a child will become. Predominantly happy experiences encourage the child to seek more such experiences and to become a social person. Too many unhappy experiences are likely to lead to unwholesome attitudes toward *all* social experiences and toward people in general. They encourage the child to become unsocial or antisocial.

Unhappy social experiences are detrimental at any age. They are especially harmful during the early years of life because this is the critical time for the formation of basic social attitudes—attitudes toward people in general, toward certain people or social groups, and toward social life as an experience. The patterns of behavior established at this time can be modified later, but with each passing year, they become harder to change.

Early social experiences may be with family members or with people outside the home. As a general rule, experiences in the home are more important during the preschool years while experiences with outsiders become more important after the child enters school. Each year, as the desire for status in the group grows, attitudes and behavior are increasingly influenced by pressures from the members of the group.

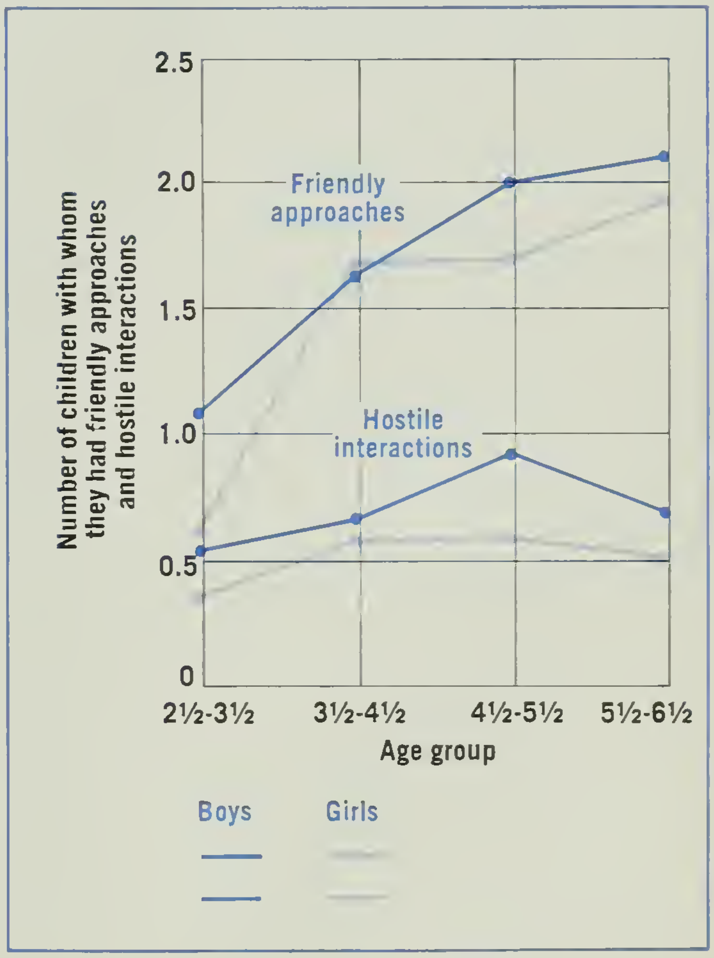
FAMILY INFLUENCES

No one member of the family or one specific aspect of family life is responsible for socializing the child. If the overall home environment favors the development of good social attitudes, chances are that the child will become a social person, and vice versa.

Studies of social adjustment have revealed that *personal relationships in the home* are highly influential: *relationships* between parents, between the child and his siblings, and between him and his parents. The position of the child in the family—whether he is the oldest, the middle, the youngest, or an only child—is also important (16). Only children or those with siblings widely separated in age or of a different sex tend to be more withdrawn when they are with other children. Children with siblings of the same sex as they find it difficult to make associations with other children of the opposite sex but easy to make associations with those of the same sex (18, 70).

The *size of the family* in which the child grows up not only affects his early social experiences but also marks his social attitudes and patterns of behavior.

Figure 10–2. There is a decline in hostile interactions and an increase in friendly approaches to members of the peer group as children grow older and have more social experiences. (Adapted from H. R. Marshall. Relations between home experiences and children's use of language in play interactions with peers, Psychol. Monogr., *1961,* **75**, *No. 5. Used by permission.)*



An only child often gets more attention than is good for him. He comes to expect a great deal of attention from outsiders and is resentful when he does not get it (18, 91).

The social behavior and attitudes of a child reflect the *treatment* he receives in the home. A child who feels that he is rejected by his parents or siblings may assume an attitude of martyrdom outside the home and carry it even into adult life. Such a child may turn within himself and become an introvert. By contrast, acceptant, loving parents encourage extroversion in the child (117).

Parental expectations motivate the child's efforts to be socially acceptable. As the child grows older, for example, he learns that he must overcome his aggressiveness and antisocial behavior if he wishes to win parental approval. He is expected to be courteous and polite in his relationships with *all* adults (114).

In the early years of life the most important influence on the child's social behavior and attitudes is likely to be the *child-rearing methods* used by his parents. The child who is brought up in a democratic home makes the best social adjustments. He is active and socially outgoing. One who is indulged, on the other hand, becomes inactive and withdrawn. The child who is subjected to authoritarian child-rearing methods is quiet and nonresistant, and his curiosity and originality are restricted by parental pressures (43, 82).

In sum, the home is the "seat of learning" for social skills. Only when children have satisfactory social relationships with members of their family can they fully enjoy social relationships with people outside the home, develop healthy attitudes toward people, and learn to function successfully in the peer group.

OUTSIDE INFLUENCES

Early social experiences outside the home supplement home experiences and are important determinants of the child's social attitudes and behavior patterns. If his relationships with peers and outside adults are pleasant, he will enjoy social contacts and want to repeat them. If they are unpleasant or frightening, he will fall back on the companionship of family members.

When a child enjoys social contacts with outsiders, he will want to behave in a manner that will win their approval. Since the desire for acceptance is great in the older child, the influence of the peer group is great, but it is strong even in the preschooler.

If a child's playmates are older than he, he strives to keep up with them and, as a result, develops more mature patterns of behavior. If the older children are bossy and he does not enjoy his contacts with them, he will then choose younger children as his playmates, bossing them as the older children tried to boss him. When his playmates or siblings are all of his own sex, he often has difficulty making good social adjustments with playmates of the opposite sex.

SCIENTIFIC REPORTS ON EARLY SOCIAL EXPERIENCES

Studies of people of all ages reveal the significance of early social experiences not only in childhood but also in later life. The most important lines of evidence will be discussed.

First, the patterns of social behavior, established early in life tend to persist. Aggressiveness, dominance, dependency, or autonomy developed in childhood, for example, are likely to characterize the behavior of the adolescent and adult. If these patterns lead to good social adjustment, they will be an asset; if they do not, they will be a distinct handicap.

Second, an individual's attitudes toward people and social activities tend to be consistent at all age levels. Social attitudes are even less amenable to change than social behavior (67, 99). Unless the child discovers that poor social attitudes make him unpopular, he is not likely to make an effort to develop favorable attitudes or to change the unfavorable ones already established.

Third, early social experiences determine the extent of one's social participation both in childhood and as one grows older. Children whose early social experiences are unpleasant tend to avoid group activities (37, 67, 99).

Fourth, since there is a close relationship between a child's liking for social activities and his acceptance by other children, the child who makes good social adjustments from the start derives the most enjoyment from social participation. The popular child becomes more active in school and extracurricular affairs during high school and college and in community affairs during adulthood than the unpopular (37, 57). Even the young child who, as a baby, had frequent and pleasant interactions with his mother is more ready to interact with strangers than one who had a less satisfying relationship with the mother. As a result, he is more popular (91, 123).

Fifth, early social experiences leave their mark on the child's personality—a mark that is likely to remain consistent throughout life. Positive attitudes toward self are most often found in the person whose early social experiences were favorable (114, 123).

The necessity of building good foundations in the early years is apparent. Bain has said, "When the child enters school, he begins to reap the rewards or suffer the ills which flow from the first six years of life" (9). If the home has done a good job, the child is prepared to adjust to the new social realities he will meet at school. If the foundations laid in the early years are such that the child gets off to a bad start, he is likely to acquire a reputation for being antisocial. If this occurs, he needs help in changing the behavioral and attitudinal patterns established in early childhood.

Influence of the Social Group

At all ages people are influenced by the social group with which they have constant association and with which they want to be identified. This influence is greatest during childhood and the early part of adolescence, the time of greatest psychological plasticity. The pattern of influence in childhood is predictable though it varies somewhat from child to child and even in the same child at different ages. This pattern is so universal that it is possible to predict which members of the social group will have the greatest influence on the child at a given age.

PATTERN OF INFLUENCE

During the preschool years, the *family* is the most influential socializing agency. From 7 years of age on, group pressures are more important than they were when the child was younger or than they will be when he grows up.

When the child enters school, *teachers* begin to exert an influence over his socialization, though *peer* influence is usually greater than either teacher influence or family influence (19, 108). A study of the relative influence of peers and parents in children's decisions at different ages found that, when advice from the two differs, children are more likely to be influenced by peers than by parents as childhood progresses (127).

The strong influence of the peer group during the latter part of childhood comes partly from the child's desire to be acceptable to, and accepted by, the group and partly from the fact that he spends more time with the peer group (125, 128).

In spite of this predictable pattern, the influence of the social group varies. A number of factors are responsible for the variations, and these, too, are largely predictable: The most important are described in Box 10-3.

The group's influence on social development is especially strong in three areas. It affects the child's motivation to conform, his urge to achieve independence, and his formation of a self-concept.

CONFORMITY. Conformity is behavior intended to fulfill normative group expectations . It reflects a willingness to model one's behavior, attitudes, and values along lines that measure up to group expectations. This willingness is motivated, either consciously or unconsciously, by a desire to ward off anxiety about how well one will be accepted by members of the social group. As such, it is a defense mechanism or a form of ego defense. Some people conform only in public and do what they please in private. Others conform both in public and in private (111).

Conformity to the group is learned first from *child-training methods* used in the home. The child is punished for nonconformity to parental wishes and rewarded for conformity. Later, conformity is learned through *identification.* The child who identifies with an aggressive model, for example, conforms to this model and becomes aggressive in competitive situations (97).

Willingness to conform is especially strong in the latter part of childhood when the desire for social acceptance reaches a peak. It is, however, part of a pattern, as Strang (122) has explained:

> . . . *Conformity may be the price one pays for safety. An early-acquired fear of making mistakes may create enough anxiety to prevent an adolescent from being different from the rest of the group. An early-acquired fear of losing the love of one's parents, which in childhood led to model behavior, may also be manifested in conformity to group standards; it may survive as a fear of losing group acceptance.*

Extreme conformity results in loss of individuality, submission to others, and rejection of personal desires. It may even lead to unsocial behavior, a change in values and strong feelings of guilt.

Nonconformity, can be just as detrimental to good personal and social adjustment as extreme conformity. The child who refuses to conform to the accepted patterns of behavior finds himself a social outcast. He is deprived of the satisfaction of being a member of the group and of the learning experiences which can come only from group belonging. *Anticonformity,* or choosing a behavior pattern diametrically opposite

Box 10-3

FACTORS RESPONSIBLE FOR VARIATIONS IN SOCIAL GROUP INFLUENCES

Acceptability to the Group

Popular children, and those who see the possibility of gaining group acceptance, are influenced more by the group and less by their families than children who do not get along well with their peers. Children who see slight chances of being accepted by the group have little motivation to conform to its standards.

Security of Status

The child who feels secure in his group will feel free to express any disagreement he has with the judgments of other group members. The child who feels less secure will conform closely and will follow the lead of others.

Type of Group

The influence of the group comes from the social distance—the degree of affective relationship—between group members. In the *primary* group (the family or peer group) bonds of intergroup relations are stronger than in the *secondary* (organized play groups or social clubs) or *tertiary* (people the child comes in contact with on buses, trains, and so on). As a result, the primary group has the greatest influence on the child.

Different Members of the Group

Within a group, the greatest influence usually comes from the leader and the least from those who are least popular.

Personality

Children who suffer from feelings of inadequacy or inferiority are more influenced by the group than those who have greater self-confidence and greater self-acceptance. Children with authoritarian personality patterns are most influenced by the group because they have a constant fear of not being liked by their peers.

Affiliation Motive

The stronger the affiliation motive—the desire to be accepted—the greater the susceptibility to influence from group members, especially those with high status in the group. The more attractive the group seems to the child, the more anxious he is to be accepted by it and the more willing he is to allow himself to be influenced by it.

to the one approved by the group, has the most damaging effect of all because it guarantees social rejection and social scorn.

Achievement of Independence. The second important way the group influences the child is by helping him to achieve independence from his parents and become an individual in his own right. Through his associations with his peers, he learns to think independently, to make his own decisions, to accept points of view and values not shared by his family, and to learn patterns of behavior approved by the group.

Self-concept. The third important influence of the group is on the child's self-concept. Even before a child knows why people accept or reject him, he senses what their opinions are and what their reactions mean. If the opinions of others are favorable, he will think favorably of himself; if they are unfavorable, he will come to dislike himself.

The Pattern of Social Development

Social development follows a pattern, an orderly sequence of social behavior which is similar for all children within a cultural group. There are also patterns in children's attitudes toward and interest in social activities and choice of companions. Because of this, it is possible to describe a timetable for socialization.

In this timetable, the true "socialization age" begins with formal entrance into school, either kindergarten or first grade. The child who has always acted upon his own impulses now tries to use adult criteria to evaluate people and situations. By the time he is 10 years old, he can modify some of his impulses to conform to the demands of the social group.

Normally, all children pass through the several stages of socialization at approximately the same age. As in other kinds of development, bright children are accelerated, while dull children are retarded. Lack of opportunities for social contacts and for learning how to get along successfully with others will likewise delay normal development.

REASONS FOR THE PATTERN OF SOCIAL DEVELOPMENT

In spite of individual age-level variations in socialization, variations in the pattern itself are slight. There are two reasons. *First*, the pattern of physical and mental development is similar for all children, even though minor variations do occur, owing to differences in intelligence, health, and other factors. Consequently, children are ready to master the developmental tasks of socialization at much the same age.

Second, within a cultural group, social pressures and social expectations lead to similar learning experiences for all children. When a child's social behavior varies markedly from that of other children of the same age, it generally means that the child has made poor social adjustments or has developed unfavorable social attitudes. In either case, the trouble can generally be traced to lack of opportunities to learn to be social or lack of motivation to take advantage of the opportunities available.

VALUES OF KNOWING THE PATTERN

Knowing the pattern of development makes it possible to predict what normal social behavior will be at a given age. Consequently, parents, teachers, and other adults are less likely to regard a child as backward or precocious, or antisocial.

Another value of understanding the pattern of social development is that it provides a schedule for training. The child can be encouraged to develop those skills and attitudes which will be expected of him if he is to gain acceptance in the group. When the child reaches school age, for example, he is expected to be able to make social contacts with his peers with reasonable success without adult interference.

The remaining pages of this chapter present a survey of the normal pattern of social development from the earliest months of life until adolescence. The survey describes a timetable for socialization. Its aim is to show what is usual in social behavior at different ages and what, as a result, will be expected at those ages. At each major stage—babyhood, early childhood, later childhood, and puberty—only the behavior and attitudes most characteristic of that period will be discussed in detail. It should be assumed, however, that, once they have developed, they will continue to play a role in the child's social relationships unless environmental forces cause them to change. Resistant behavior in babyhood, for example, may lead to negativism if the young child is not granted independence in keeping with his developmental status. Since prejudice and discrimination normally do not develop until the child enters school, they will be discussed in the section about social behavior in late childhood but emphasis will be placed on the foundations of prejudice developed earlier.

Beginnings of Social Behavior

At birth, the baby is nongregarious. He has no interest in people as long as his bodily needs are taken care of. During the first 2 months of life, he merely responds to stimuli in his environment, and his reactions come only when the stimuli are intense, as in the case of loud noises. He does not even distinguish between the human voice and other noises. Beginning with the third month, *gregarious* behavior predominates.

Social behavior begins when the baby first distinguishes between people and objects and responds differently to them. By the time he is 2 to 3 months old, his eye muscles are strong enough and sufficiently coordinated to enable him to look at people and objects and follow their movements. His hearing is also developed enough to enable him to distinguish different sounds (70).

At an early age, the baby responds to other babies and children differently from the way he responds to adults. Since the baby spends much more time with adults, they have a greater influence on his socialization.

REACTIONS TO ADULTS

The baby's first social responses are to adults because, normally, they are his first social contacts. By the beginning of the third month of life, the baby turns his head when he hears a human voice and smiles in response to a smile or clucking sound. He expresses pleasure in the presence of others by kicking, smiling, and waving his arms.

During the third month, the baby cries when left alone, but will stop crying when he is talked to or diverted by a rattle or some other mechanical device. He recognizes his mother and other familiar people, and shows his fear of strangers in timid responses, such as turning the head and crying.

In the fourth month, the baby makes anticipatory adjustments to being lifted, shows selective attention to the human face, looks in the direction of the person who leaves him, smiles at the person who speaks to him, shows delight in personal attention, and laughs when being played with.

From the fifth or sixth month, he reacts differently to smiling and scolding and distinguishes between friendly and angry voices. He recognizes familiar persons with a smile and shows definite expressions of fear in the presence of strangers. During the sixth month, social advances become more aggressive. The baby pulls the adult's hair; grabs his nose, eyeglasses, or clothes; and explores his facial features.

By 8 or 9 months, the baby attempts to imitate speech sounds as well as simple acts and gestures. At 12 months, he can refrain from doing things in response to "no-no," and he shows his fear and dislike of strangers by drawing away and crying when a stranger approaches. From the age of 15 months, the baby shows an increasing interest in adults and a strong desire to be with them and imitate them. At 2 years, he can cooperate with adults in a number of routine activities.

Thus, in a relatively short period, the baby changes from a passive member of the family who receives much attention but gives little in return, to an active member who initiates social contacts and participates in family activities.

REACTIONS TO OTHER BABIES

The first indication that a baby perceives another occurs between the ages of 4 and 5 months, when he smiles at another baby or shows an interest in his cry. Friendly contacts between babies 6 to 8 months old consist of looking, smiling, and reaching out and touching. Unfriendly contacts consist of blind attempts to grasp something held by another baby and often result in impersonal fights. Between 9 and 13 months, the baby explores other babies by pulling their hair or clothes, imitates the behavior and vocalization of of others, and shows for the first time cooperation and social use of material. When a toy is taken away by another, the baby becomes angry, fights, and cries.

Social reactions toward other children develop rapidly during the second year. From the thirteenth to the eighteenth months, the baby smiles and laughs in imitation of another child. His interest shifts from play materials to the playmate himself, and there is less fighting over toys and more cooperative play. During the last half of the second year, the baby regards play materials as a means of establishing social relationships. He cooperates with his playmate, modifies his behavior to adjust to his playmate's activity, and engages in games with other children.

BEHAVIOR IN SOCIAL SITUATIONS

As a result of the baby's contacts with others, both adults and babies, certain social responses begin to be established. These early responses, outlined in Box 10–4, are the foundations upon which later social behavior develops.

The influence of early social behavior on later development has been emphasized by scientific studies. The baby who depends on his mother to take care of his needs and wants, even after he is maturationally ready to learn to take care of them himself, develops a generalized dependency on all adults and even on children. This makes the achievement of independence difficult for him. The baby who is permitted to do as he pleases finds it very difficult to conform to the rules of the playground or school (2, 123).

While social attitudes and responses which lead to personal- and social-adjustment problems can be modified as the child grows older, it is far easier to avoid the problems by laying good foundations in the first place. That is why babyhood is regarded as a critical age in socialization.

Social Development in Early Childhood

From 2 to 6 years of age, the child learns how to make social contacts and get along with people outside the home, especially children his own age. He learns to adapt himself to others and to cooperate in group play activities. Follow-up studies of groups of children report that the social attitudes and behavior established during these years persist with little change (37).

Early childhood is often called the "pregang age." The *number* of contacts the child has with other children during the pregang age determines in part how far his social development will progress. Children who attend kindergarten have a decidedly larger number of social contacts and make better social adjustments than those who do not have this preschool experience (104). They are better prepared for active group participation when they enter school. The *kind* of social experiences the child has is more important than the number, however. If his contacts with children and adults outside the home are satisfying, even though infrequent, he will want to repeat them. If his contacts are primarily frustrating, he will go out of his way to avoid meeting people and thus will deprive himself of important learning opportunities.

One of the many advantages of nursery school or kindergarten is that it provides social experiences under the guidance of trained teachers who promote enjoyable contacts and try to see that no child is subjected to treatment that might condition him to avoid social contacts. As a result, overall negative reactions to other children decrease. Negative reactions to teachers, however, sometimes increase slightly as the child becomes more child- and less adult-oriented (104).

RELATIONS WITH ADULTS

With each succeeding year, the young child spends less time with adults and derives less enjoyment from being with them. At the same time, his interest in playmates of his own age mounts and his enjoyment from being with them increases. With his growing desire to be independent of adults, he becomes resistant to adult authority.

In spite of their desire for independence, young children still try to gain attention and approval from adults. An experiment with older and younger preschoolers found that the younger children more often looked to their teachers before making their choice of a toy, while the older preschoolers more often looked to their peers. This suggests that adult influence was still strong but waning (54). There is also evidence that, among preschoolers, outside adults often have more influence on their behavior than parents (119).

However strong the child's desire for peer contacts, parents and teachers are still largely responsible for providing a model for his developing social attitudes and for determining whether these will be attitudes of good will and friendly cooperation toward all or of intolerance and prejudice against those who are different.

RELATIONS WITH OTHER CHILDREN

Before the age of 2 years, young children engage in solitary or parallel play. Even though two or three

Box 10–4

FOUNDATION OF SOCIAL BEHAVIOR LAID IN BABYHOOD

- *Imitation.* The baby becomes a part of the social group by imitating others. He first imitates facial expressions, then gestures and movements, then speech sounds, and finally, total patterns of behavior.
- *Shyness.* By the third or fourth month, the baby can distinguish between familiar people and strangers. Until late in the first year, he reacts to strangers by whimpering, crying, hiding his head, and clinging to the person who is holding him.
- *Dependency.* The more the baby is cared for by one person, the more dependent he becomes on that person. He shows his dependency by clinging to the person, crying when he is left with someone else, and expecting to be waited on even when he is capable of doing things himself.
- *Acceptance of authority.* Whether the baby will learn to conform to the requests of those in authority will depend on how insistent the persons in authority are. Permissive attitudes encourage the baby to reject authority.
- *Rivalry.* Rivalry develops in associations with other babies or children. It is shown by attempts to snatch toys or other objects from them, not because the baby wants them but because it gives him pleasure to assert his superiority.
- *Attention seeking.* During the second year, the baby tries to get the attention of adults by vocalizations, especially crying, by grabbing at their clothing, by hitting them, and by doing forbidden things. If he is successful, he shows his satisfaction by smiling or laughing.
- *Social cooperation.* The baby's cooperative play with adults is usually successful because they are willing to do most of the sharing. With peers, social cooperation is usually unsuccessful.
- *Resistant behavior.* During the middle of the second year of life, resistant behavior begins. It is expressed by tensing the body, crying, and refusing to obey. Unless the baby is given opportunities to be independent, resistant behavior usually leads to negativism.

children play in the same room and with similar toys, little social interaction takes place. Their contacts consist primarily of imitating or watching one another or of attempting to take one another's toys.

From the age of 3 or 4, children begin to play together in groups, to talk to one another while they play, and to select from the children present those with whom they prefer to play. The most common behavior of these groups consists of watching each other, holding conversations, and making verbal suggestions.

A study of children in pre-school has revealed that as children advance in age, there is an increase in friendly approaches to other children and a decrease in hostile interactions. Age for age, boys made more friendly as well as more hostile approaches to other children (82).

COMMON FORMS OF SOCIAL BEHAVIOR

Some of the forms of social behavior developed in early childhood are based on foundations laid in babyhood. Some are new, based on new foundations. Many appear to be unsocial or even antisocial, but, in reality, each is important in the socializing process. The foundations laid in early childhood will determine how the child will adjust when his environment becomes broader and he does not have the protection and guidance of his parents.

Negativism. Macfarlane *et al.* have defined negativism as a combination of self-assertion, self-protection, and resistance to excessive pressures. Children, they add, learn that resistance is the best defense when training is erratic or when "quick-tempered persons push slow-tempered persons too fast" (81).

Negativism is a product of social situations. It is the child's response to aggressive discipline or an intolerant adult attitude toward normal childish behavior. It generally appears in connection with the established home routine, when the child refuses to perform a certain activity at a scheduled time. It also appears in situations involving strangers. The more the child is frustrated by adult interference, the more negativistic his behavior will be.

Resistant behavior begins at about 18 months of age and reaches a peak between 3 and 6 years, after which it recedes rapidly. Boys often experience a second peak between 10 and 11 years of age. Decline in negativism comes partly from social influences, partly from the child's realization that it is to his advantage to comply, and partly from adults learning to respect the child's wishes.

Among young children, negativism may be expressed by physical tenseness, the opposite of cuddliness; by failing to carry out requests; by pretending not to hear or understand; by stubbornness in connection with routine activities, such as eating and toileting; and by many little acts of self-assertiveness, such as commanding, demanding, walking away, or hiding when called. Very negativistic children may hold their breath until they become blue in the face; they may force themselves to vomit, or refuse to swallow food or urinate.

Negativism is commonly associated with temper tantrums, destructiveness, moodiness, and somberness. The well-adjusted child generally expresses his negativism in direct forms, while the poorly adjusted child expresses his negativistic feelings in diffuse and generalized ways, most often in temper outbursts.

Between 4 and 6 years, physical expressions of resistance decline and verbalization increases. There is a growing use of protective lying. The child uses "No" as an answer to all sorts of suggestions, questions, and amiable approaches. He annoys others and makes repeated complaints. He subtly pretends not to hear or understand, refuses to see the point, insists upon referring to a subject that has been closed, and is careless in carrying out requests or duties.

Parents and teachers may regard negativism as a nuisance, but it is of considerable value in social development. Banham (13) has written:

> *Contra-suggestibility, negativism, and obstinacy in children may be taken as signs of potentiality for good social adjustment. They are forms of behavior that are unsatisfactory in themselves, but that at least show vitality, motivation, and the beginnings of selective sensitivity to a complex social situation. They indicate that the child is capable of developing social and emotional attachments and antagonisms. . . . Children become excessively obstinate when demands are made that are impossible for them to execute, when the demands are humiliating, unfair, or exceedingly disagreeable or painful. Obstinate contrariness is a compensatory adaptive reaction, only partially successful, in the interest of self-preservation, growth, and development. It is likely to change to cooperative behavior when the child finds something he can do that will bring satisfaction to him while complying with the wishes of those for whom he cares.*

Aggression. Aggression is an actual or threatened act of hostility, usually unprovoked by another person. Almost all young children are aggressive to some extent, and such behavior may be regarded as normal during the early years. Ordinarily, aggression reaches a peak between 4½ and 5½ years and then gradually diminishes in frequency and intensity. Before the child is 4 years old, he has fewer and briefer contacts with other children and, as a result, fewer opportunities for aggressiveness. As contacts with other children become more frequent, so does aggressiveness.

The child who learns from experience that aggression will lead to reward. either in attaining his goal or in reducing his anxiety, will continue to use aggression whenever he is frustrated. The child who has less satisfying aggressive experiences learns that withdrawal and renunciation of his goal are more effective ways to deal with frustration or allay anxiety. Aggressiveness is aroused when something happens to keep the child from achieving a goal that is *important to him* personally. It sometimes comes from poor social adjustments while, at other times, it indicates an improved sociability. The most common causes of aggressiveness are given in Box 10–5.

Aggressiveness is expressed most commonly in *provoked physical aggression,* as when a child engages in a physical attack after provocation; in *outbursts of aggression,* or a display of uncontrolled temper-tantrum behavior; in *verbal aggression,* as when a child verbally attacks another with threats, scoldings, or lies; and in *indirect aggression,* which consists of an attack through another person or object, as when a child talks about another person or breaks things belonging to a person he would like to attack directly. With repetition, aggressive expressions become habitual, and the child is labeled an "aggressive child."

The young child may express his aggressiveness in mild physical attacks with the hands and feet or in more dangerous ways, actually hurting the other person. The younger the child, the more completely he expresses his aggression. He attacks more vigorously and cries more, thus getting it out of his system. From the age of 4 or 5, direct expressions of aggressiveness gradually decrease, and indirect or deflected expressions—especially verbal attacks, blaming others, tattling, and name calling—progressively increase.

Aggressiveness varies according to *time of day, setting, familiarity* with other children in the setting, and the presence or absence of *adults.* It is likely to be strongest during fatigue periods, just before eating and sleeping. The better the child knows the other children he is playing with, the more aggressive he is likely to be. A child may restrain his aggressiveness while parents or other adults are present because of fear of punishment or unfavorable social attitudes. This restraint, however, usually increases his frustration and leads to even greater aggressiveness later when no adults are present. *Twins* tend to be less aggressive than singletons, especially during the early years (68). This is illustrated in Figure 10–3.

The kind *of aggressive behavior* children display likewise varies. If they have been trained in social conformity, they will be more likely to displace their aggressive behavior than to attack directly. Popular children express their aggressions within the context

Box 10–5

COMMON CAUSES OF AGGRESSIVE BEHAVIOR IN YOUNG CHILDREN

- Frustrations which predispose the child to attack a person or object that stands in his way
- Displaced anger when the child cannot express anger directly toward the offending person or object
- Parental rejection
- The desire to win attention
- The child's desire to show his superiority
- Need for self-protection when the child feels insecure or is on the defensive
- Jealousy
- Identification with an aggressive adult or older child
- Identification with aggressive characters in the mass media
- Physical punishment for misbehavior, arousing the desire to strike back
- Permissive attitudes of parents or other adults toward aggression
- Emotional tensions resulting from family stress not involving the child

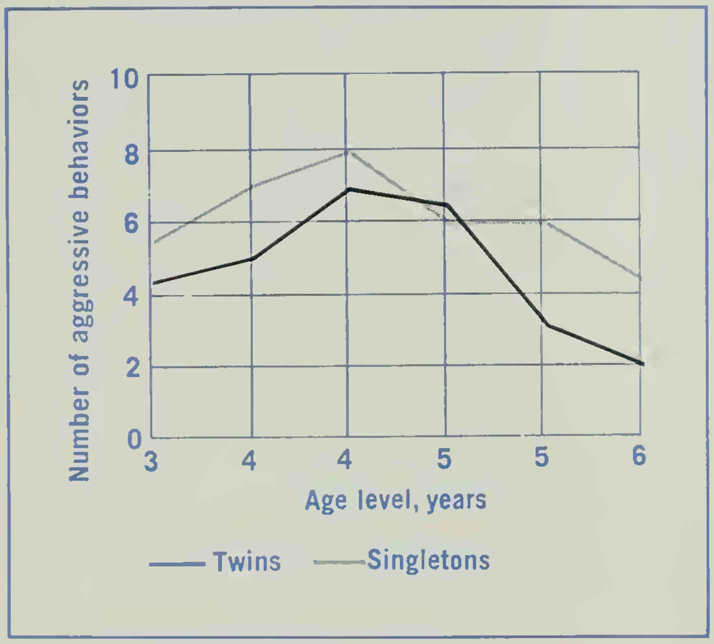
of their play and have a definite single recipient of their aggression; they rarely displace it. Unpopular children more often displace their aggression, attacking anyone who happens to be around.

Quarreling. Quarrels are angry disputes that generally start when a person makes an unprovoked attack on another. They are thus an outgrowth of aggression. Quarreling differs from aggression, however, in two major respects. *First,* quarreling involves two or more people, while aggression is an individual act. *Second,* one of the people involved in a quarrel plays a defensive role, while, in aggression, the role is always aggressive.

Quarreling is like aggression in that both are highly charged with emotions, mainly anger; both involve attacks on another person; and in both, the attack may be physical or verbal. Because quarreling usually has its origin in aggression, the course of its development closely parallels that of aggression. It reaches its peak between the ages of 3 and 4 years and then begins to decline as the child learns to make better social adjustments.

A child quarrels because he does not know how to make social contacts in a more mature way. Quarreling begins when one child attacks another's person or property. Among young children, a conflict over property is the usual starting point.

Figure 10–3. Twins tend to be less aggressive than singletons during the preschool years. (Adapted from C. C. Kim, R. J. Dales, R. Connor, W. Walters, and R. Witherspoon, Social interaction of like-sex twins in relation to intelligence, language and physical development, J. genet. Psychol., *1969,* **114**, *203–214. Used by permission.)*



When children quarrel, it does *not* mean that they dislike each other. In fact, most quarrels occur among friends. Once a quarrel is ended, regardless of *how* it was ended, the children are cheerful and friendly, taking up where they left off when the quarrel started. Rarely do they show resentment or break off the friendship.

Quarreling may involve destroying another child's work, taking away his toys, screaming, crying, biting, kicking, hitting, name calling, and making derogatory statements. Most young children use physical attacks. If punished, they gradually substitute verbal for physical attacks. Quarrels among young children are short but intense; on the average, they last about 30 seconds and occur every 5 minutes while the children are together. As children grow older, quarrels occur less frequently but last longer, and the fighting is harder.

The kind *of activity* engaged in influences the frequency and intensity of quarreling. Constructive play of all kinds as well as meddlesome, destructive activities result in a great deal of quarreling because they involve comparisons of performance. The least quarreling occurs when play is individual, quiet, and intellectual. *Boys* at every age quarrel more than girls; boys start more quarrels, they retaliate more, and their quarreling is more aggressive, dynamic, and outgoing. Within the home, quarrels among *siblings* are common. During early childhood, siblings of the same sex quarrel more than siblings of opposite sexes.

Unpleasant as quarreling may be for those who live and work with children, it is an *educational experience* for the child. It teaches him, in a practical way, what other people will and will not tolerate. The child finds, for example, that if he grabs a toy from another child, the child will grab it back and start a quarrel. Furthermore, he discovers that picking fights makes him unpopular and can lead to physical pain.

Teasing and Bullying. Teasing and bullying are aggressive forms of behavior that usually lead to quarreling. *Teasing* is a verbal attack on another in an attempt to "get his goat" and thus arouse an angry response. It may involve calling someone by a nickname that emphasizes his physical or mental weaknesses. In *bullying,* the attacker inflicts physical pain on another because of the pleasure he derives from watching the victim's discomfort and attempts to retaliate.

In the home or at school, younger children are often teased or bullied by the older ones. Not all children, however, engage in these aggressive acts. Boys tease and bully more, on the average, than girls, and children who feel inferior or insecure do more teasing and bullying than better-adjusted children.

Rivalry. Rivalry is characterized by a desire to outdo others. It may take many different forms, one of the most common of which in young children is bragging about being first in some activity or about owning superior material possessions.

Studies have shown that children of 2 years exhibit no signs of rivalry. When placed in a competitive situation, they merely look at each other occasionally. A year later, some competition appears, but it is eclipsed by other social attitudes, especially imitation. By 4 years of age, children have a better idea of excelling, and by 6, most have a well-developed competitive spirit (40, 45, 121, 128).

Children from the lower socioeconomic groups, boys especially, are more competitive at every age than those from the higher socioeconomic groups. When competing with strangers, children are quieter than when competing with friends. With their friends, they become noisy and excited. Young children, as a rule, will persist in a task longer when competing with others than when working alone.

Rivalry, followed by quarreling, is more common in the presence of a third person, especially an adult for whose attention the children compete. Up to the time the child begins to associate regularly with other children in the presence of an adult, as in a nursery school, he is more anxious for *adult* than for peer *attention* and uses any means he can to get it. Gradually, as his interest shifts to the peer group, he brags and shows off his skills in an attempt to assert his superiority and capture the spotlight.

In the home, rivalry is very common, especially when jealousy exists between *siblings*. Rivalry between a male and a female sibling or between male siblings is likely to be stronger and lead to more quarreling than rivalry between female siblings. This is especially true when the mother shows a preference for a son.

Cooperation. Since the child of 2 or 3 years is self-centered and quarrelsome, it is difficult to get him to play in a cooperative manner with other children. By the end of the third or fourth year, however, cooperative play becomes more successful. The more opportunities the little child has to be with other children, the sooner he will learn to cooperate with them. Cooperative group work is not understood much before the child is 6 or 7.

Delay in developing cooperative behavior is often due to lack of opportunity to learn work skills in the home. Far too often the young child who wants to "help" his mother is not allowed to because she thinks he will be more of a hindrance than a help or because she feels childhood should be a happy, carefree time.

Where authoritarian child-training methods are used in the home to *force* cooperation, children often develop negative attitudes and tend to be uncooperative when parental authority is absent. Children brought up by more democratic child-training methods, by contrast, usually enjoy being cooperative. They develop the habit of cooperation at home and carry it into their out-of-the-home activities (40, 47, 128).

Ascendant Behavior. In ascendant behavior, as Mummery has explained, the individual "attains or maintains mastery of a social situation, or attempts to do so, so he is in control of his own act and can carry out his purposes" (92). The tendency to dominate others, or to be bossy, is nearly universal in young children; it usually shows itself first in their relationships with adults. Beginning at about the age of 3 years, ascendancy increases as opportunities for social contacts increase; it reaches a peak around the age of 5 and then declines.

Among nursery school children, *girls* are significantly more dominating than boys in play situations. In kindergarten, the reverse is true; except when children are paired with those of the opposite sex, then the girls are bossier than the boys (92).

Children who are especially assertive toward their contemporaries derive this pattern of behavior from their *home environments*. They usually come from discordant homes where there are arguments over disciplinary policies, excessive restriction on the children's behavior, and many coercive suggestions from parents.

When properly directed, ascendant behavior can be of great value to a child. Whether it develops into leadership, bossiness, or undifferentiated ascendance will be influenced, to a large extent, by the environment and the people the child associates with. He will be bossy, for example, if he is with an adult who tolerates bossiness or with a younger child who has no alternative but to accept such behavior. With other children, he will use commands, threats, or force to try to gain his objective. Ascendant behavior, tempered by a democratic approach to social relationships, puts the child in line for a leadership role.

Generosity. Typically, the young child is egocentric. He demands what he wants, and if it is denied, he will protest by crying or displaying his anger in a temper tantrum. Only after he begins to play with others does he begin to learn to submerge self-interest in the interests of the group. Selfishness usually reaches a peak between the ages of 4 and 6 years. It then declines as the child discovers that it leads to social rejection. By the end of childhood, selfishness has almost completely disappeared in children who make good social adjustments, though it continues to be a common form of behavior in others (22, 55, 94). Generosity, as shown in a willingness to share with others, increases as selfishness decreases.

The most selfish children come from the richest homes—where egocentrism is permitted or even encouraged. The most generous come from middle-class homes—where parents place strong emphasis on social acceptance and good social adjustments. Children from large families are more generous than children from small families, while only children tend to be the most selfish.

Whether children will be selfish or generous depends not so much upon the size of their family as upon the *kind of training* they receive and their experiences in the peer group (116, 118). They do not become generous simply because they grow older. Guidance and a deliberate effort by parents, teachers, and others play a large part in developing generosity. It is a case where practicing and setting a good example produce better results than preaching. Children must have a model of generosity to imitate and they must be given approval when they imitate it successfully (22, 55, 87). They also learn to be generous by observing how another child *benefits* from his generosity; if his social acceptance is improved by a generous act, that is evidence that generosity pays (33, 110). All children tend to be more generous toward their *friends* than toward nonfriends. There are no marked *sex* differences in generosity or selfishness.

Desire for Social Approval. Even a baby likes to be noticed. Long before he can talk, he senses that he is the center of admiration and attention. With each succeeding year, the desire for approval, first of adults and later of peers, increases. This desire to impress others often brings the child into conflict with adult rules and the codes of the social group.

Lack of social approval makes the child unhappy and often drives him to behave in a way that, he has learned from experience, invariably gets attention. The young child equates attention and social approval, and so he may seek attention in socially unacceptable ways. That is why a child who feels neglected will "cut up" and noisily demand attention from anyone who happens to be present. The child learns that some attention devices, especially verbal ones, are more approved than others. He then asks questions, makes urgent requests for help, and boasts.

Unlike the baby, who is usually afraid of strangers, the young child seeks the attention and approval of strangers more often than that of parents or other familiar adults. This has been demonstrated in an experiment in which the influence of unfamiliar experimenters, both male and female, was compared with that of parents (119).

Some children have a greater need for social approval—a higher approval motive—than others. If the approval motive is high, the child will conform to social expectations, even when they are contrary to his interests or standards of behavior. If it is low, he will be directed by his interests and standards, whether he wins social approval or not.

Sympathy. In sympathy, one is affected by the emotional states of another. This is possible only when one is able to empathize or imagine himself in the position of another. Because of their inexperience, young children are incapable of sympathetic behavior in many situations. As they become older and have themselves been in a situation similar to that of the other person they can respond with sympathy.

Young children express sympathy by helping, protecting, or defending others; by removing, attempting to remove or punishing the cause of distress; by comforting others with pats, hugs, and kisses; by reporting the situation to an adult or another child and appealing for help; by asking questions to find the cause of distress; and by suggesting or effecting solutions. Some show sympathy by being kind to a newcomer in a group or by defending the rights of younger children or those who are unable to defend themselves. Unsympathetic responses include laughing at the person in distress; using the situation to play one's own role, usually a dominating one; attacking a child in distress; or merely staring (93).

Dependency. A child depends on others for help in doing things he cannot do himself or believes he cannot do. He also depends on others for love and attention and for ego support in situations where he questions his own adequacy. Thus, the independence-conscious child who constantly says, "I can do it," is still fundamentally dependent. At first, the child is dependent on his parents; later, he shifts some of his dependency to his siblings, especially older ones who are viewed as parent substitutes. From 2½ to 4½ years, he becomes somewhat dependent on the peer group (69, 84).

Dependence on others for attention and affection persists throughout the early years of childhood. It does not decrease as the need for help decreases. It often increases. When this happens, dependency is likely to become generalized, spreading to *all* behavior.

A habit of dependency is fostered in the home, but it leads the child to depend on his playmates as well as on outside adults. As a result, he is highly *suggestible* and easily *influenced.* He is unhappy unless people give overt manifestations of their interest, and thus he seeks attention by asking for help, asking questions, doing things that are forbidden, and reverting to infantile behavior. Since young children derive more satisfaction from their dependency on adults than on age-mates, most of their attention-seeking behavior is directed toward adults.

In *overdependency,* the child looks to others for more help, attention, and affection than is normally necessary at his age level. It generally stems from *feelings of insecurity.* Those feelings, in turn, are the effects of domination or rejection by the parents. In time, they lead to a generalized state of overdependency in which the young child depends on *anyone* who is available, whether an adult or another child. Overdependency is especially common among children who suffer from a *chronic illness,* such as asthma, and in firstborn children whose *status in the family* is threatened by the arrival of siblings (18, 69, 81).

Friendliness. Young children are friendly toward both adults and other children. They crave social contacts and are unhappy when deprived of them. Much of the young child's behavior—his aggressiveness, his lack of sympathy, his demands for attention—may suggest that he regards others as potential enemies and that he is self-bound. Such, however, is not the case. The child wants to be friends; in his childish, bungling way, he tries to let the other person know this. He simply *has not learned how to establish social contacts in a more acceptable way.*

Studies reveal that affectionate approaches in young children are more frequent than aggressive approaches. While girls have a more friendly attitude toward their age-mates than boys, both boys and girls *initiate* most of their social contacts by friendly overtures. Once a social contact has been made, it may quickly lead to a quarrel, but the quarrel will be short, and a friendly relationship will soon be reestablished. If the young child were not friendly, he would have little motivation to resume a friendly relationship after the quarrel ended. Like an older child, he would be more likely to break off the friendship and seek new friends (57, 69, 82).

Young children express friendliness by such overt acts as hugging, kissing, and stroking; by giving rapt attention to what the other person says or does; by trying to protect the person against aggressive acts; by comforting the person; by wanting to be with the person constantly; and by helping in whatever way they can. As their ability to speak improves, they verbalize their feelings in such remarks as "I love you," "You are my friend," or "I want to go with you."

IMPORTANCE OF EARLY SOCIAL BEHAVIOR

If young children are to develop into social people, they must be encouraged to do so, rewarded for their efforts even when their behavior falls short of adult standards, and guided into methods of coping with social situations that will win the approval they crave. To achieve this goal, parents, teachers, and other adults responsible for the training of young children must keep four points in mind. These four points, stated as cautions, are given in Box 10-6.

Social Development in Late Childhood

After the child enters school and comes into contact with other children, family picnics and parties become a bore. At the same time, individual games give way to group games, and solitary play loses its charm. Since group games require a large number of playmates, the older child's circle of friends gradually widens (36). With changes in play interests comes an increasing desire to be with, and to be accepted by, children outside the home. This is just as true of girls as of boys, though girls' play outside the home is frequently more restricted.

Upon beginning school, the child enters the "gang age"—an age when social consciousness develops rapidly. Becoming socialized is one of the major developmental tasks of this period. The child becomes a member of a peer group which will gradually replace the family in its influence over his behavior and attitudes. The peer group, as defined by Havighurst, is an "aggregation of people of approximately the same age who *feel* and *act together*" (58).

During the transition from the pregang age of early childhood to the gang age of late childhood, the child shifts from one group to another or from group to individual activities. The "shifting-group" stage bridges the gap between the pregang and the gang ages. The informal play group of the early school days consists of only two or three children. It is formed to carry out a specific play activity and is thus transitory. The activity itself, not friendship, is the basis for the organization of the group. Within the group, leadership swings from one child to another, depending on which child takes the initiative in a specific activity. There are many brief quarrels, but these have no permanent effect on the makeup of the group.

Box 10–6

CAUTIONS IN DEALING WITH YOUNG CHILDREN'S BEHAVIOR IN SOCIAL SITUATIONS

- Give overt recognition to social behavior. Since unsocial behavior has more attention value than social behavior, adults tend to overlook the social and concentrate on the unsocial. Also, they often judge children's behavior by adult standards, and thus regard it as worse than it actually is.
- Show the *right kind* of tolerance and understanding of unsocial behavior. Adults must recognize that young children cannot be expected to behave in a socially acceptable manner until they are taught how to do so. Children do not just outgrow unsocial behavior, and if it is not restrained they will assume that it is acceptable.
- Provide guidance to help children learn how to act in a socially approved manner and to understand why social behavior is more satisfying than unsocial behavior.
- Provide motivation so that children will want to behave in a socially approved manner. When behavior is guided into channels that will satisfy the need for attention and approval, children's motivation to behave as parents, teachers, and society in general expect will increase. Lack of guidance is likely to lead to social rejection and this will lessen motivation.

The experience of being suddenly thrown into a large group does not cause an abrupt change in the child's social relationships. Instead, there is a gradual increase in group play from the sixth to the eighth year. With this change comes a gradual increase in socialization. The child becomes less selfish, self-centered, and aggressive and more cooperative, outgoing, and group-conscious.

CHILDHOOD GANGS

The gang is a spontaneous local group having no authorization from outside and no socially approved aim. Although adults may know that it is being organized, it is formed by the children themselves, without support from parents, teachers, or youth leaders. It is an attempt by children to create a society adequate to meet their needs. As such, it is a substitute for adult society and for what that society fails to give. It offers relief from adult supervision, though it may not be hostile to the adults in authority. The gang is not necessarily a product of substandard environments; it is also found in good environments.

Gang Makeup. Gangs have a more definite structure than the informal groupings of younger children. Gang members are selected because they are able to do things the others enjoy doing, not because they live near each other or can do what one or two members want to do at the moment. The gang exists independently of activities and then selects the various activities it will engage in.

The typical gang is a *play group,* made up of children who have common play interests; its primary purpose is to have a good time, though, occasionally, having a good time may lead to mischief-making. From the age of 6 or 7, boys and girls normally find increasing pleasure in being with groups of their own sex. As a result, gangs are unisexual in makeup. Some of the most important characteristics of childhood gangs are shown in Box 10-7.

Sex Differences in Gangs. Boys, as a rule, start to form gangs earlier than girls. Both tend to lose interest in gang life at puberty. Since girls mature earlier than boys, the girl's gang experience is shorter than that of the boy. Girls' gangs are usually smaller than boys'; they are much more closely organized and are surrounded with more secrecy. Their leaders are more autocratic, and they are less likely to welcome new members than boys' gangs.

Boys are more likely than girls to include in their gangs children of slightly different ages, thus making a hierarchic social system possible. Leaders are chosen from the older, stronger, more ambitious, or more adventuresome boys. The leaders of girls' gangs are generally selected because they are more sophisticated and more attractive in appearance than the other gang members.

The activities of gangs as well as their makeup reflect sex differences. The activities of boys' gangs often border on rowdyism, in that boys tend to be noisy, happy-go-lucky, careless, and trick-playing. Members of a boys' gang often try to test the barriers imposed by adults; as a result, they may engage in behavior which, in adolescents, would be classed as delinquent.

Girls' gangs, by contrast, engage in socially unacceptable behavior far less often. Usually their worst offenses are occasional attempts to be grown-up and sophisticated by smoking and by engaging in scandalmongering. Because games and sports mean less to girls than to boys, girls spend much of their time talking about their parents, siblings, teachers, and other classmates, especially members of rival gangs; making things to sell to raise money for charity; putting on plays after making the costumes and scenery; going to the movies together or watching television; trying to solve their grooming problems; playing card games; cooking food and eating; and picnicking or exploring remote parts of the community together. A few girls' gangs go in for more strenuous activities, such as games and sports, and some, especially in poor neighborhoods, spend their time in mischief-making or even in occasional fights with boys' gangs.

Influence of Gangs. As the child's interests turn from the home to peer group activities, the gang begins to dominate his life. It sets the style in his clothing and in his language; it determines his play activities and his standards of behavior. Belonging to a gang not only gives the child companionship and an opportunity to have fun but also a feeling of pride and achievement.

As Havighurst has pointed out, there are four major ways the gang can help the child to become a social person.

- The gang helps teach the child to get along with his age-mates and to behave in a way that is socially acceptable to them.
- The gang can help the child develop a rational conscience and a scale of values to replace the moral values of his parents, which he accepted as an "authoritarian conscience."
- Through gang experiences, the child learns appropriate social attitudes, such as how to like people and how to enjoy social life and group activities.
- The gang can help the child achieve personal in-

Box 10-7

CHARACTERISTICS OF CHILDREN'S GANGS

- Gangs identify themselves by names, many of which are taken from the street or neighborhood where the members live or from popular books, comics, or movies.
- Gang members use secret signals, passwords, communication codes, or a private language to maintain their secrecy.
- Childhood gangs often use insignia—caps, armbands, or other decorations—to identify their members.
- Gangs sometimes have initiation ceremonies to test a new member's skill or physical endurance, to create loyalty within the group, and to make each member feel that he is important because he is accepted.
- The preferred meeting place of the gang minimizes adult interference and maximizes opportunities for favored gang activities. Girls usually meet close to home, while boys meet as far from home as possible.
- Gang activities include all kinds of group play and entertainment, making things, annoying other people, exploring, and engaging in forbidden activities, such as gambling, smoking, drinking, and experimenting with drugs.

dependence by gaining emotional satisfaction from friendships with peers (58).

For the most part, gang life in childhood favors the development of *good* qualities. It teaches the child to be democratic, to fit his desires and actions into those of the group, to cooperate with the group, to develop skills which will enable him to do what his peers do, and to eliminate selfishness and antisocial individualism. In his competition for status, the child tries to improve himself and to redirect his egocentric interests into channels that promote the group's interests.

On the other hand, gang life favors the development of certain *undesirable* qualities. It often encourages the use of slang and swearing, the telling of salacious stories and jokes, truancy, mischievousness, attitudes of contempt for rules and those in authority, the breaking of home ties and the shifting of loyalties from home to group activities, snobbishness, discrimination against members of minority groups or rival gangs, and the breaking down of ideals established in the home. Most of these undesirable effects of gang life are transitory. As the child grows older, many of them can be eliminated.

One of the most valuable lessons a child learns from being a member of a gang is to evaluate himself realistically. In the home, where personal bias, stemming from parental affection, is strong, the child learns to think of himself as his parents think of him —as a "superior" person. In the gang, this personal bias does not exist. If his contemporaries like him, the child thinks favorably of himself and becomes a self-acceptant person.

A child who has no gang experience is deprived of many learning opportunities. As a result, his behavior often falls short of social expectations. He is likely to develop a distorted, unrealistic concept of himself. If he does not belong to a gang because no gang will accept him, he thinks of himself as an inferior and unworthy person. Should his lack of membership be due to geographic isolation, he is likely to develop feelings of martyrdom and envy. If his nonmembership is voluntary, he will learn to think of himself as "different" because no one can understand why he scorns the activities his age-mates favor.

In time, a child who has been rejected by a gang or who voluntarily withdraws from gang membership because he derives too little satisfaction from it is likely to have a *generalized negative attitude toward all social activities.* He is then likely to become an unsocial or antisocial adult.

PATTERNS OF SOCIAL BEHAVIOR IN LATE CHILDHOOD

Gang life contributes to the development of a number of different kinds of social behavior. Some are outgrowths of habits and attitudes established during the preschool years; others result from the broader social contacts of the older child. Some interfere with social adjustment, although, on the whole, with modifications and changes as the child grows older, they favor social adjustment. They are the foundations of the social behavior normally found in adults.

Susceptibility to Social Approval and Disapproval. As soon as the child begins to crave the companionship of others, he also craves their approval of his dress, speech, and behavior. Should a conflict arise between the standards of the home and the school and those of his playmates, the child will invariably side with the latter. In discussing the child's susceptibility to group approval and disapproval, Church and Stone have said that "for a 7- or 8-year-old the worst 'sin' is to be in any way different from other children" (24).

The craving for attention and social approval stems from feelings of insecurity and inadequacy. It is associated with such traits as timidity, jealousy, moodiness, and overdependency. While all children want social approval and do all they can to avoid disapproval, the more secure the child, the less he submerges his own interests, needs, and desires and accepts those of the group. Among girls, demands for attention, in the hope of winning social approval, begin to decline at the age of 8 years. Among boys, such behavior shows a sharp rise between 8 and 10 years of age and then begins to decline at 11.

Oversensitiveness. A common outgrowth of the child's susceptibility to social approval and disapproval is oversensitiveness—the tendency to be easily hurt and to interpret what others say and do as hostile. Macfarlane et al. have pointed out that oversensitiveness at this stage of development is "like the common cold"—almost everybody has it (81). In fact, it is the most frequently reported form of problem behavior among normal children as they reach school age.

To some extent, oversensitiveness is a measure of the child's desire for social acceptance—a desire which makes him highly susceptible to the attitudes of both adults and members of the peer group. It is also an effective device for coping with parents. When frustrated in what he wants to do, the older child soon discovers that putting up a fight and being negativistic are poor weapons; they rarely bring the desired results. Hurt feelings, however, baffle parents and often make them feel guilty because they have "hurt" their child in an attempt to do what they feel is best for him. As long as the child can use this device to get the upper hand in a conflict situation, oversensitiveness will persist. It is seldom used outside the home because other children can see through it too easily.

Suggestibility and Contrasuggestibility. A person who is suggestible is easily influenced by others. Like oversensitiveness, suggestibility is an outgrowth of the craving for attention and social approval. The suggestible child believes that his willingness to follow others in what he thinks and does will guarantee acceptance by them. Perhaps at no other age is the normal individual so suggestible as during late childhood. Studies of school children show that the peak of misdemeanors usually comes between the ages of 7 and 8 years, when loyalty to the group renders the child highly subject to the influence of other members, especially the leader (71, 140).

Contrasuggestibility means thinking and acting contrary to suggestions from others. While accepting in a more of less unquestioning manner the suggestions of the peer group, the older child begins to revolt against adults and to act in direct contradiction to them.

Contrasuggestibility is similar to negativism in the younger child; the older child, like the younger, does just the opposite of what he is asked to do, or he refuses to do anything. Negativism normally reaches its peak between the ages of 3 and 6 years and then recedes as parents adjust their demands to the capacities of their children and as children, in turn, become mature enough to understand why their parents restrict their behavior. In boys, however, another peak occurs just before puberty.

At this time, boys who are members of gangs are breaking away from adult authority as much as they can and asserting themselves as individuals. Since girls' gangs are never given as much freedom as boys' gangs, the older girl is more accustomed to being restricted; as a result, she is less likely to experience a period of contrasuggestibility as she approaches puberty.

Competition. During the gang age of late childhood, competition takes three forms: rivalry among group members for recognition within the group itself, conflicts between the gang and rival gangs, and conflicts between the gang and organized agencies of society. Each of these has a different effect on the socialization of the child. The first is likely to lead to hostility and quarreling within the gang, thus serving to weaken the group and the loyalty of each member. The second serves to build up solidarity and feelings of loyalty, while the third, if it can be kept within constructive bounds, serves to develop independence.

Competition among older children is likely to lead to much quarreling. It may be expressed in aggressive fighting or in more subtle ways, such as criticism of others, ganging up on a single child who is disliked for his annoying behavior or because he belongs to a minority or rival group, teasing and bullying, ignoring a child or a group of children, or arguing without any real provocation and with the apparent desire to make the other person uncomfortable or annoyed.

Good Sportsmanship. Good sportsmanship is the ability to cooperate with others to the extent of submerging individual personalities and promoting the spirit of the group. While it can be learned at home, it is far more likely to be a product of group life. From being a member of a gang, the child soon learns that he must play according to the rules of the game. Any infringement upon these, such as cheating, tattling, lying, or using underhanded methods, will not be tolerated. When working together for a common reward, children show positive interactions, such as helping each other and sharing materials. When competing, they have negative interactions, such as appropriating materials, making unfriendly remarks, and trying to obstruct or dominate others.

Good sportsmanship entails a willingness not only to cooperate with others but also to share. As was pointed out in the earlier discussion of generosity among young children, generosity develops rapidly after the child enters school but especially rapidly during the fourth and fifth grades, when the desire to be an acceptable member of a gang reaches its peak. The child who wants to be considered a "good sport" must be generous with his material possessions, but he must also be generous in his attitude toward losing to another, whether in school or in games. No matter how badly he wants to win, he must share the pleasure of victory with the winner instead of pouting, complaining, or accusing him of being unfair.

For all children, good sportsmanship, which is one aspect of conforming to social expectations, is essential to social acceptance. It is more important for a boy than for a girl, however, for two reasons: *First,* the boy spends more time with gang members than the girl, and *second,* other boys in the group place a higher value on good sportsmanship than do girls in a group.

Responsibility. Closely related to good sportsmanship is responsibility—the willingness to assume one's share of the load. The young child, because of his helplessness, must depend on others to do many things for him. This dependency should decrease as motor and speech skills develop, but it cannot do so unless the child has opportunities to learn to take charge of his own affairs or assume a role in the group's affairs.

Too many burdens placed on the child too suddenly will undermine his confidence, especially if he meets with failure. For that reason, the development of responsibility must be gradual, starting with simple tasks and increasing as the child gains confidence.

Studies of how responsibility is developed reveal that it, like many other kinds of social behavior, is "homegrown"; it has its roots in the child's early training. Children from large families, through necessity, must develop responsibility for their own affairs and for the care of younger siblings. Girls, on the whole, are expected to show more responsibility in the home than boys. Boys, however, often have some work experience outside the home as they approach the end of childhood, and this gives them the same kind of training that girls get in the home (18, 69).

Children who are not given opportunities to acquire the self-confidence needed to be independent tend to fall far short of what one would normally expect. While the actual trend may closely approximate the ideal by the time the child reaches legal maturity, it falls short of the ideal in the latter part of childhood.

Social Insight. Social insight is the ability to perceive and to understand the meaning of social situations and of people in those situations. It is dependent upon *empathy*—the ability to put oneself in the psychological shoes of another and to perceive a situation from his perspective. Stated differently, empathy is the ability to feel imaginatively and to think of oneself in the total mental-emotional attitude of another person.

To make good social adjustments, a person must, as Lee (75) has explained, be able to perceive and predict the behavior, thoughts, and feelings of others.

> *If you can learn a simple trick, Scout, you'll get along a lot better with all kinds of folks. You'll never really understand a person until you consider things from his point of view—until you climb into his skin and walk around in it.*

Prediction of another person's behavior, thoughts, and feelings is based first on observing the individual's behavior, then on understanding the meaning of his behavior, and last on perceiving his deeper attitudes or feelings. The ability to identify the emotional reactions mirrored in another's facial expressions is one of the earliest forms of social insight.

Social insight normally increases with age, owing partly to mental maturation and partly to learning from social experiences. Only in very late childhood, however, is it sufficiently developed for the child to be able to understand the behavior and feelings of other children to any great extent. Children whose social perception is superior to that of their peers usually make better social adjustments and receive greater social acceptance.

There is a slight *sex difference* in social insight, with girls a bit more mature than boys. The higher the *intelligence* of the child, the more perceptive he is likely to be; this contributes to the popularity of bright children. The connection between the child's *status in the group* and his insight, noted above, works both ways. The more popular the child, the more social insight he develops. The more perceptive he is, the more popular he is likely to be. The unpopular child, because he lacks social acceptance, has limited opportunities to develop social insight. As a result, he often says and does things which antagonize his playmates and thus increase his lack of acceptance. Social insight also varies according to the *personality* of the child; the better adjusted the child, the more interest he has in others and vice versa.

Until social insight is well developed, the older child, like the younger one, tends to behave in a cruel way. With social insight, however, comes the ability to understand a situation, to be affected by the emotional states of another, and to share a "fellow feeling." A delay in the development of sympathy leads to poor social acceptance; the child who wants to improve his social acceptance must improve his social insight and, through it, his sympathy for others. In a discussion of the relationship between empathy and aggression, Feshbach and Feshbach (41) explain:

The distress response of a child who is the object of an aggressive act may serve several adaptive functions. It "tells" the aggressor that the act has been effective as well as producing distress responses through empathy in the aggressor. Empathy, then, is the mechanism which may help terminate aggressive behavior before the object of aggression suffers serious injury.

Social Discrimination. Social discrimination appears early in childhood but is not well developed until the child becomes a member of a gang. Gang members assume the attitude that *any* member of their group is all right but that anyone who is not a member is inferior. This is a form of snobbishness, based on whether or not one belongs to the group. It soon becomes *generalized* to include anyone who is different because of religion, race, socioeconomic status, age, or sex.

The child who discriminates against others treats them as inferiors because they are different, not because they are actually inferior. He regards them as belonging to an "outgroup" or a "minority group" because their status is considered inferior, not because their numbers are few. The child who belongs to a gang feels that his status is superior to that of a child who does not belong, and he feels that if his gang is recognized as superior, all other gangs are "outgroups" and hence inferior.

Prejudice. Back of discrimination is prejudice—a tendency to classify *all* who belong to other groups, whether they are social, religious, racial, or sex groups, as inferior and to treat them accordingly. It is based on a set of attitudes which cause, support, or justify discrimination. In prejudice, there is a tendency to *prejudge* as inferior all those who belong to a group against which there are unfavorable social attitudes, not because of what they are, but because of their identification with that group. Prejudice is made up of three elements, each of which influences behavior (6). These three elements are shown in Box 10-8.

Prejudices are the product of social learning. Very early, a child becomes aware of differences between people, but awareness of differences, per se, does not mean that he will be prejudiced. (See Fig. 10-4.) Only when he becomes aware of the social attitudes toward those who are different and only when pressure is placed on him to accept these social attitudes does prejudice develop (3, 25, 119).

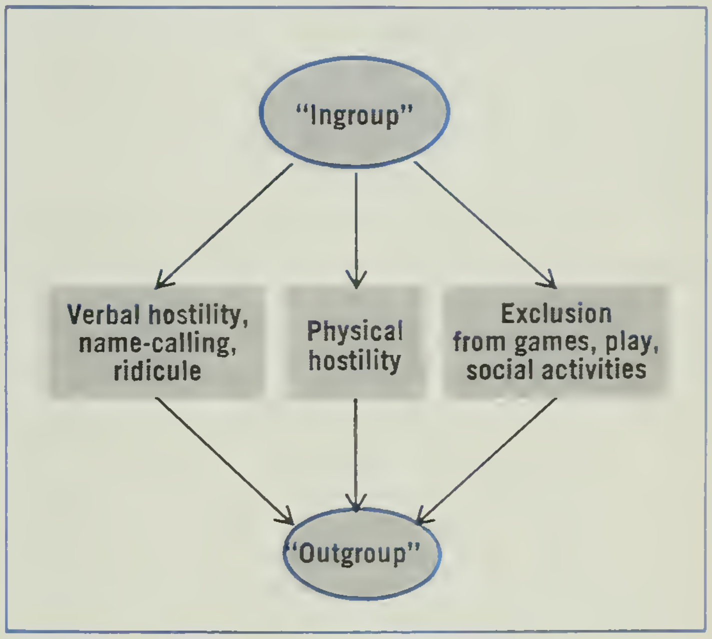
Awareness of differences comes during the preschool years. Racial awareness, for example, grows rapidly from the ages of 3 to 5 years (133). Prejudiced *attitudes* generally appear between 3 and 4 years, while prejudiced *behavior* comes slightly later. There are few indications of prejudiced behavior before children are 4 years old (28, 98, 119).

Box 10-8

ELEMENTS IN PREJUDICE

- *Beliefs.* Underlying prejudice are widely accepted beliefs about the inferiority of those against whom prejudice is directed. These beliefs are rarely based on personal experience. Instead, they are usually based on stereotypes concerning the personal qualities of those who belong to a specific group.
- *Emotional accompaniment of beliefs.* Accompanying all beliefs that form the basis for prejudice is an emotionality that ranges from cold indifference to bitter and violent hostility.
- *Treatment of victims of prejudice.* In all prejudice, widely accepted beliefs define the appropriate treatment of those against whom the prejudice is directed. This treatment ranges from indifference to exclusion or active persecution.

Figure 10-4. Some ways in which prejudice is expressed among children.


"Ingroup"
Verbal hostility, name-calling, ridicule
Physical hostility
Exclusion from games, play, social activities
"Outgroup"

What is sometimes interpreted as prejudice may not actually be such. Instead, it may indicate *racial bias,* not *racial prejudice* (90, 98). Similarly, children may *prefer* to be with other children whose background is similar to theirs because they feel more at home with them. This does not mean that they dislike members of another group or feel superior to them. Prejudice involves hostility and discrimination. If the preference is for others of one's own kind, without any hostility toward members of another group, the cleavage between the child and members of another group may be due to a "comfort differential"—a feeling of greater "at homeness" with one group than with another—but *not* to prejudice (84, 134). In explaining the comfort differential's effect on children of different ethnic backgrounds, McCandless and Hoyt have pointed out: "Children in one ethnic group do not actively *avoid* members of the other group, but differentially *approach* the members of their own group" (84).

How Prejudices Are Acquired. Prejudices are not a part of the hereditary endowment; instead, they are *learned.* Some prejudices are learned through *unpleasant experiences* with a person of a certain group. This conditions the child to dislike not only that person but all who are identified with him because of their group affiliation (126). Some prejudices come from an uncritical acceptance of the *cultural values* of the home and of the social group. When certain groups are segregated in school or in the community, for example, the child assumes that they are inferior because society treats them as if they were. Or, if cultural values emphasize the inferiority or superiority of certain accents, age levels, or nationalities, the child learns to think of them as inferior or superior. Most prejudices come from *imitating* the attitudes and behavior of parents, teachers, peers, neighbors, and characters in the mass media with whom the child identifies (27).

Few parents, teachers, or other adults actually *teach* children to be prejudiced. Their attitudes and behavior, however, their restrictions on playmate choice, and their tendency to stereotype—to attribute certain physical, behavioral, and mental characteristics to all individuals in a given racial or religious group—result in a pattern of prejudice which children imitate. In the case of parents, for example, it is not the parents' attitudes alone but the entire home influence that is responsible for the development of prejudice

As children spend more and more time with the peer group, they "catch" some of their prejudices from the group members. In their desire to gain status in the group, older children accept the prejudices of the group because it is the "thing to do." In addition, prejudice gives the older child a *feeling of self-importance,* often serving as an outlet for frustration and thwarted aggression. Allport has said that prejudice may be a "psychological crutch" used by immature and psychologically crippled children, or it may come from a desire to conform to group expectations (3).

Targets of Prejudice. Almost anyone at any age may be the target of prejudice. In childhood, however, certain children are more likely to be the objects of prejudice than others. Traditionally, children from *minority groups,* whether the minority status be based on religion, race, nationality, socioeconomic level, or other condition, are likely to be discriminated against.

In prejudice based on *sex,* girls are far more often the target than boys. Girls themselves are more likely to discriminate against other girls than against boys. *Young children* and *elderly adults* suffer more from childish prejudice than do older children and young adults. Children from *deprived areas* of cities are often the target of prejudice (28, 108). Children with physical or mental *handicaps* face greater obstacles to social acceptance than members of minority groups (108). There is strong prejudice against a child who comes from a *deviant family* pattern, as in the case of illegitimacy or divorce (where divorce is relatively uncommon) or family stigmas arising from the socially disapproved behavior of some family member (109).

Effects of Prejudice. Prejudice affects the child who is prejudiced just as it does his victim, though in a different way. The *child who is prejudiced* often becomes rigid, cruel, intolerant, and vindictive—traits which may become habitual and affect his relationships with people against whom he has no prejudice. The *child who is the victim of prejudice* comes to believe that the social environment is hostile and that no one likes him. He is subjected to ridicule, teasing, bullying, and physical aggression and is ignored and left out of things. He may respond to this treatment by withdrawing from the social group, becoming excessively aggressive in his defensive reactions, or by turning his hostility against society in general and becoming a delinquent. Seldom will he accept discrimination as a challenge to show others his worth (28, 59, 135). In time, the weight of prejudice tends to cramp and distort his personality development. In describing the psychological damage to the child who is the target of prejudice, Allport (3) has said:

A child who finds himself rejected and attacked on all sides is not likely to develop dignity and poise as his outstanding traits. On the contrary, he develops defenses. Like a dwarf in a world of menacing giants, he cannot fight on equal terms. He is forced to listen to their derision and laughter and submit to their abuse. There are a great many things such a dwarf-like child may do, all of them serving as his ego defenses.

The more aware the child is of the prejudice people direct against him, the more damaged he will be psychologically. Being called "nigger" or "kike" leaves no question in his mind about the group's attitude toward him. Similarly, being discriminated against in an integrated school communicates to the child that he is regarded as inferior. Williams and Byars (135) have written:

If society communicates to the Negro child that he is a second-rate, subservient individual, it is probable that he will come to view himself as an inferior person. There is no social institution that emphatically communicates to the Negro that he is an inferior individual more than segregation.

Attempts to Curb Prejudice. Preventing prejudice or modifying it is very difficult, though the younger the child, the more hope there is. If prejudice fills a deep-seated need in the child's life, age alone is not an important factor. The child who uses his prejudice to displace thwarted aggression, for example, will be less motivated to change than the child whose prejudice comes from the belief that "everyone feels that way."

Many attempts have been made to break down the barrier of prejudice by bringing children together so that they can get to know one another better. If prejudice is based on stereotyped beliefs, personal contact might correct the stereotype and thus reduce the prejudice. If it is based on unfavorable personal experiences, however, or if the contact is involuntary, as in many desegregated schools, personal contacts will not necessarily reduce the prejudice. They may even intensify it, especially in the short run.

Helping the child to develop better social insight about people against whom he is prejudiced, by explaining *why* they are different, may help to reduce prejudice. This has been done with considerable success through the use of multiethnic or "integrated" readers for elementary school children—readers which contain characters from several different racial or ethnic groups. Even in the absence of direct contact with children of other racial or ethnic groups, children who use these readers can improve their social insight and develop more favorable attitudes (77).

Since most prejudice in children comes not from personal contacts but from "social contagion," the most hopeful way of combating it is to make prejudice *unfashionable.* No child can be expected to have a tolerant attitude as long as members of the peer group approve intolerance. He will not modify his prejudice until the rest of the group leads the way.

Peer group prejudice is learned by social contagion from adult groups—mainly from parents—and children cannot be expected to modify their attitudes as long as they have a constant pattern of prejudice to imitate in their homes. Thus far, efforts to reduce prejudice have made little headway; the hopes of eliminating it completely are still very dim.

Sex Antagonism. In the early years of childhood, boys play with girls much as they did during babyhood; social harmony between the two is common. As late as the first, and sometimes the second, grade, boys *may* be willing to play with girls, provided the girls can keep up the pace the boys set. A boy may even prefer to play with some particular girl whom he especially likes. See Figure 10-5. Some boys at this time actually prefer girls' play activities, and some girls prefer boys' activities (129, 131). These are exceptions, however. Most children during kindergarten and first grade begin to prefer persons—both children and adults—of their own sex. This tendency becomes more pronounced each year, reaching its peak just before and during puberty (21, 53, 105).

As the preference for members of their own sex develops, so does a cleavage between the sexes. Accompanying this cleavage is an antagonism toward members of the opposite sex. Boys and girls belittle one another's interests, skills, and activities; they refuse to associate with one another even at parties; and they are constantly bickering, name calling, and quarreling (105, 129). For the most part, boys are the aggressors in this battle of the sexes. Girls retaliate by refusing to associate with boys and return in kind the treatment they receive from them.

There is no evidence that sex antagonism comes from physical causes or from the maturation of any mental ability. Rather, all evidence points to *cultural influences.* There are cultural pressures on both boys and girls to develop interests appropriate to their sex, to engage in activities that are culturally sex-linked, and to regard one sex as superior and the other as inferior, instead of different. This pressure, which is stronger on boys than on girls, comes from parents, teachers, peers, and other adults. See Figure 10–6. Little boys, for example, are told that "boys don't cry." If they display behavior that is traditionally regarded as feminine, they are labeled sissies or babies. Another common source of cultural influence is the *mass media,* most of which stress, either directly or indirectly, the superiority of the male.

Sex antagonism affects the child who belittles members of the opposite sex just as it affects the victim of the belittling. This means that boys are unfavorably affected just as girls are, but in a different way. Some of the important effects of sex antagonism are shown in Box 10–9.

There is no scientific evidence that women who are active in the Women's Lib movement were victims of unusual sex antagonism during their childhood days. It is not unlikely, however, that the resentment built up at that time, as a result of belittlement by brothers and male classmates, has consciously or unconsciously pushed them to demand equal treatment in marriage, jobs, and all other areas of life. How important a role this resentment has played will become more evident if scientific investigations are made of their childhood experiences.

Social Development at Puberty

With the beginning of puberty comes a change in social attitudes, a decline in interest in group activities, and a tendency to prefer solitude. As puberty progresses and the rate of puberty changes speeds up, social attitudes and behavior become increasingly antisocial.

Because of the antisocial behavior of this age, puberty is sometimes called the "negative phase" and a "period of disequilibrium." (Refer to Chap. 6 for an earlier discussion of the meaning of "negative phase.") These labels suggest that the child's attitude toward life is "anti," that he is negating some of the social characteristics developed so slowly and laboriously during the childhood years.

At this time, the pattern of social development is interrupted. The child is not, however, on a plateau in the curve of social learning; instead, he is skidding downward, often abruptly, from the point where he seemed to be close to the adult level. For most children, this interruption of the socialization process is only an interlude, unpleasant while it lasts but leaving few if any permanent scars.

Since the antisocial behavior of the prepubescent or pubescent child is not the result of ignorance of social expectations, it cannot be called "unsocial." Typically, the child knows what society expects of him and has, in later childhood, conformed to those expectations. During puberty the child *intentionally* does the opposite of what is expected of him. He knows, for example, that harassing little children is regarded as poor sportsmanship, and yet he teases and bullies younger siblings or neighborhood children.

BEGINNINGS OF ANTISOCIAL BEHAVIOR

It is impossible to predict exactly when antisocial behavior and attitudes will begin because there are

Box 10–9

SOME EFFECTS OF SEX ANTAGONISM

- Boys often develop unjustified feelings of male superiority. See Figure 10–7.
- Girls may develop inferiority or martyr complexes which affect their lifetime personal and social adjustments—just as feelings of superiority affect boys' adjustments.
- Girls frequently develop a resentment over being born female and rebel against their culturally approved sex roles.
- Even when girls prefer to play with boys and boys with girls, it is difficult or impossible to do so because of social ridicule and rejection.
- Boys and girls find it difficult to become childhood friends.
- Since it is unlikely that boys and girls will develop common interests, the difficulties of heterosexual adjustments in adolescence are intensified.
- Boys are discouraged from developing "sissified" social skills, and thus feel inadequate in social relations with girls as they grow older.
- Both boys and girls develop anxieties about their sex appropriateness.

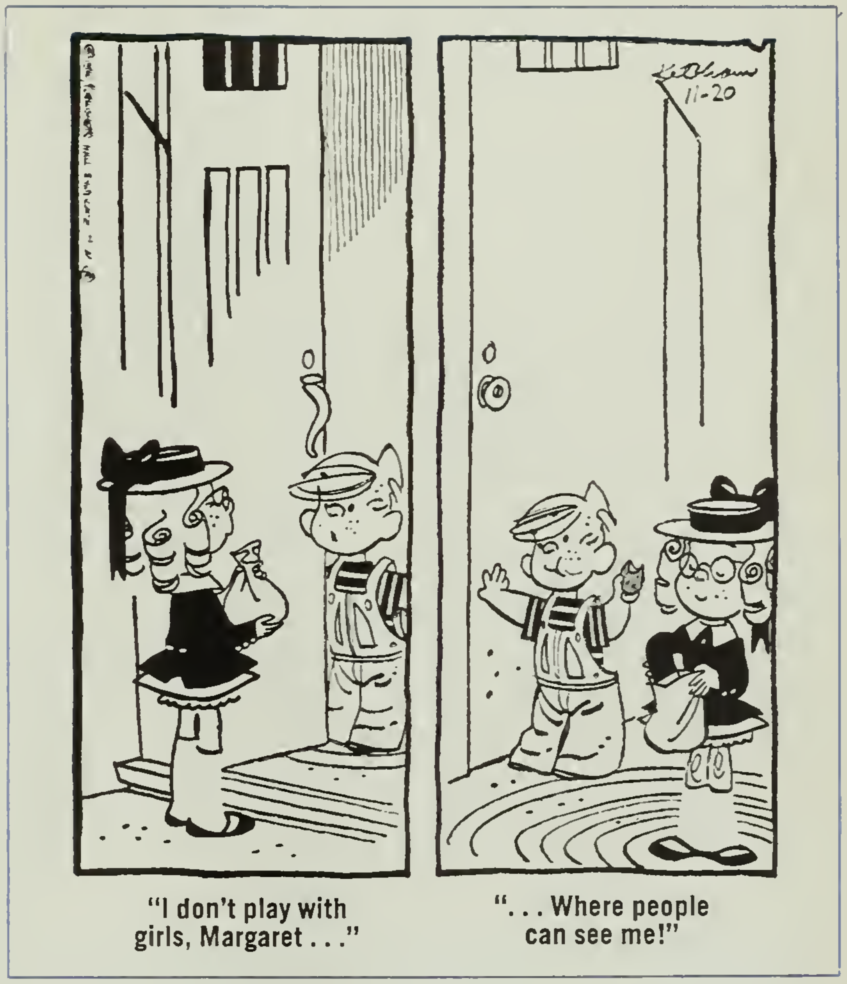

"I don't play with girls, Margaret . . ."
". . . Where people can see me!"

Figure 10–5. A little boy may prefer to play with girls rather than with boys, provided he is not seen playing with them when other boys can tease him. (From Ketcham, "Dennis the Menace." The Philadelphia Evening Bulletin. *Publishers-Hall Syndicate, Nov. 20, 1970. Used by permission.)*

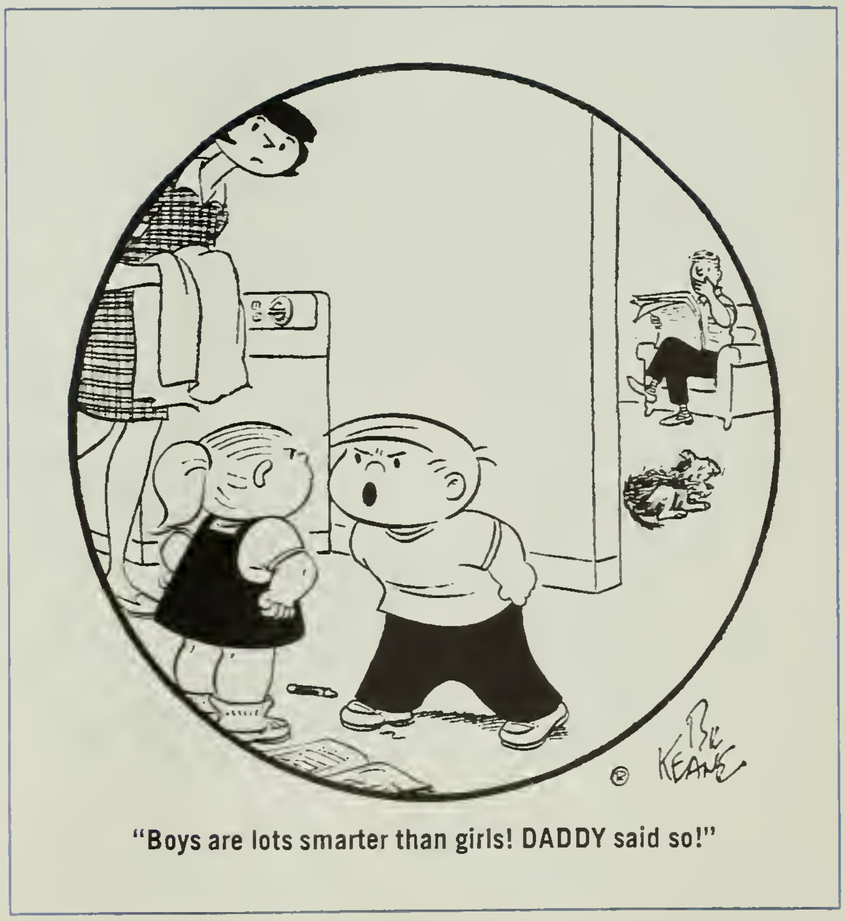

"Boys are lots smarter than girls! DADDY said so!"

Figure 10–6. (Below) Pressures from adults are an important factor in sex-antagonism in childhood. (From Keane, "The Family Circus." The Philadelphia Evening Bulletin, *Register and Tribune Syndicate, May 23, 1970. Used by permission.)*

such marked individual differences in the age of sexual maturing. On the average, however, puberty starts about a year earlier in girls than in boys. (See Chap. 6 for a more complete discussion of the age of sexual maturing.) The average age for the beginning of puberty changes in girls is 11 years, and in boys, 12 years. The first signs of antisocial behavior, therefore, can be expected at approximately these ages.

The worst aspects of antisocial behavior occur in the 6- to 12-month period preceding sexual maturity. This means, for girls, at some time between the twelfth and thirteenth birthdays, and for boys, between the thirteenth and fourteenth birthdays. After the peak has been reached, there is normally a rather rapid decline in antisocial behavior. Because girls, on the average, mature more rapidly than boys, the antisocial behavior characteristic of girls at this age is generally more pronounced than that of boys. Many boys, however, experience as pronounced reversals in their social development as girls.

After the worst of the negative phase has passed, with the advent of sexual maturity, the young adolescent begins to climb upward again, slowly at first but then at increasing speed, motivated by a strong desire to be socially acceptable to the peer groups of both sexes. Whether the effects of the negative phase on his future socialization will be left behind depends on many factors: when puberty occurs, how long it lasts, how closely it conforms to the norm of his age-mates, and how parents, teachers, and peers treat him during this transitional period.

CAUSES OF ANTISOCIAL BEHAVIOR

Without question, antisocial behavior at puberty is partly the result of rapid and far-reaching *physical* and *glandular changes*. A physical upheaval of the type that occurs during puberty could not occur without affecting behavior.

Antisocial behavior is also, perhaps to a very large degree, due to *environmental factors.* Since the child is beginning to look more like an adult—not only in size but also in body contour—parents and teachers decide that the time has come for him to "put away childish things" and assume the responsibilities of maturity. The result is that new duties and responsibilities are assigned to him at a time when he is not ready, physically, to assume them. Furthermore, after the carefree days of childhood, the child resents the sudden imposition of new duties and responsibilities and is likely to develop feelings of martyrdom. These feelings alone would be enough to lead to antisocial attitudes and behavior.

Feelings of martyrdom are most likely to occur when the child's sexual maturing deviates markedly from that of his age-mates, either in the time it occurs or in the time needed to complete it. The early-maturing child, for example, shows characteristic negative-phase behavior sooner than his friends. Such behavior is met with intolerance because neither parents nor teachers expect or understand it.

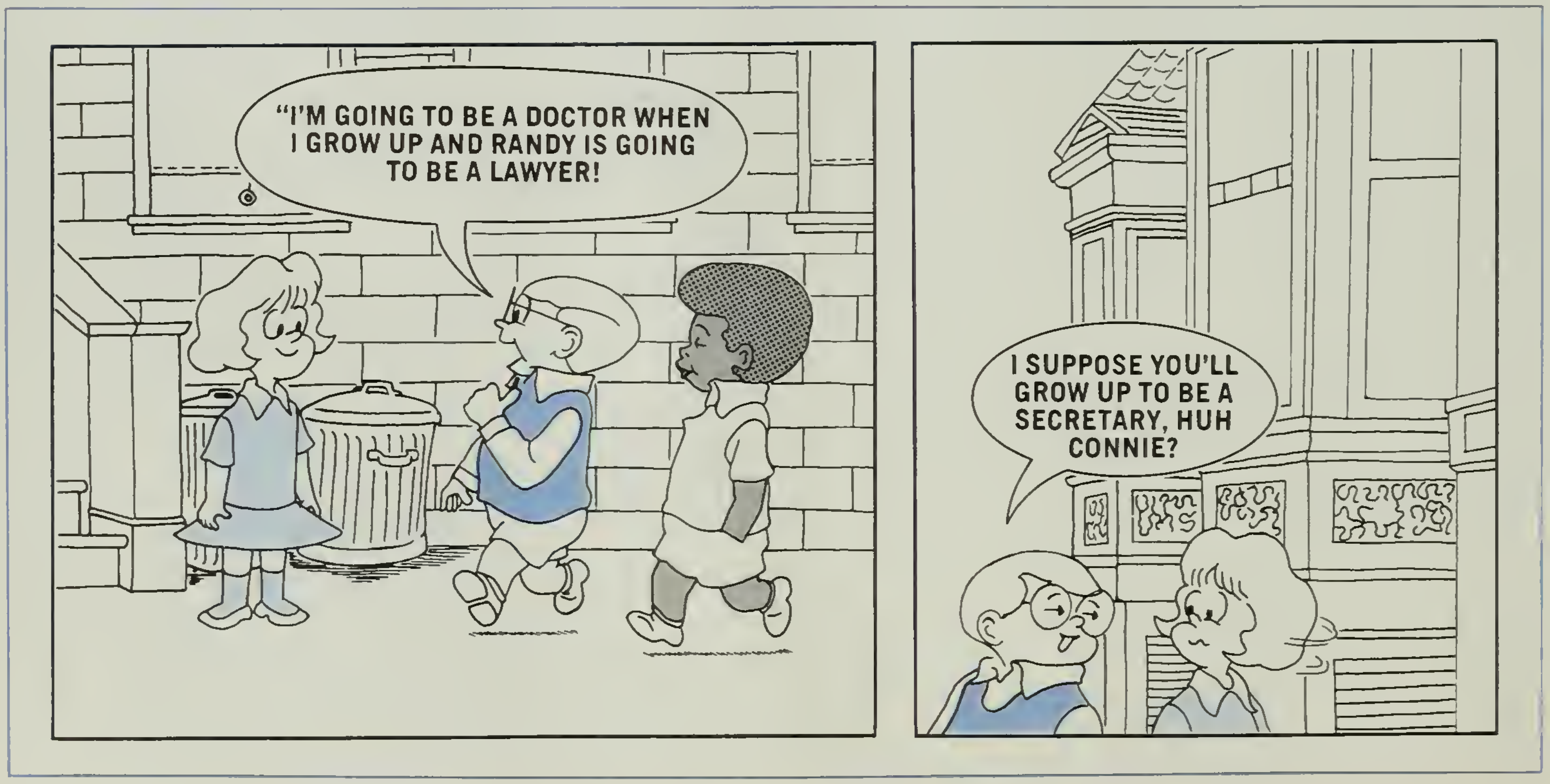
Physical changes, accompanied by unfavorable physiological states, lead to self-concern and anxiety. The child who is excessively worried about himself becomes excessively *self-bound* and thus unsocial.

EFFECTS OF PUBERTY CHANGES

Reversals in attitudes and behavior are inevitable at puberty. Sometimes the changes are so pronounced that the child literally reverts to behavior characteristic of the preschool years; sometimes he seems to be on the path to juvenile delinquency. In many respects, the changes *seem* worse than they actually are, partly because they follow so closely the socialized behavior characteristic of the gang age and partly because the child, who now looks almost like an adult, is judged by standards more in keeping with his size and general appearance than with his level of development. The most characteristic changes in social attitudes and behavior during the puberty period are given in Box 10–10.

Changes in Self-concept. Studies of changes in self-concept have revealed that children change their feelings about themselves as their bodies change and as the attitudes of significant people in their lives change (4, 35, 65). A study of boys and girls from 9 to 13 years—when puberty changes are most rapid and

Figure 10–7. Boys often develop an unjustified feeling of masculine superiority. (From Turner, "Wee Pals." The Sunday Bulletin, *Register and Tribune Syndicate, July 26, 1970. Used by permission.)*


"I'M GOING TO BE A DOCTOR WHEN I GROW UP AND RANDY IS GOING TO BE A LAWYER!
I SUPPOSE YOU'LL GROW UP TO BE A SECRETARY, HUH CONNIE?

their effects on behavior are most pronounced—shows a downward trend in self-evaluation of intelligence, cooperativeness, generosity, sociability, popularity, and ability to be entertaining and amusing (4).

Changes in Attitudes and Behavior. The radical changes that occur at puberty, however devastating they may seem, are a normal part of the pattern of social development. Many kinds of antisocial behavior wane and disappear as sexual maturity is completed and as the young adolescent's desire for social acceptance motivates him to conform to social expectations. Even though he may have antagonized friends and alienated parents, teachers, and other adults while in the negative phase, his later behavior is so improved that ordinarily he is forgiven.

If the time when he matures sexually approximately coincides with the time his friends mature, they are all behaving in much the same way. As a result, his antisocial behavior is actually *in conformity with the group pattern* at that time. It is not likely to develop into a habit because it lasts for a relatively short time and is followed by a period in which he has a strong desire to behave in a socially acceptable manner.

Deviant sexual development, by contrast, often results in individual variations that are difficult to overcome. The *early maturer* shows exaggerated forms of antisocial behavior earlier than the average child of his age primarily because he cannot convince his parents and teachers that he wants to be treated in accordance with his level of physical maturity, not in accordance with his chronological age. If he successfully gains the status he feels he deserves, he will generally abandon his antisocial behavior and

Box 10–10

CHARACTERISTIC ATTITUDES AND BEHAVIOR AT PUBERTY

- The pubescent child has an antagonistic attitude toward everyone. He goes around with a chip on his shoulder, a snarl on his face, and a clenched fist.
- The pubescent is even more aggressive than the preschooler, instigating fights with peers and criticizing, arguing, and finding fault with everything adults do.
- The child quarrels over the most trivial matters and picks fights with members of his gang, criticizing whatever they do and delighting in hurting their feelings. As a result, many long-standing friendships are broken.
- According to the pubescent child, social activities "bore" him. Why don't people get "off his back," both at home and in school?
- The pubescent spends much of his time in isolation, engaging in daydreams in which he plays the role of a martyr or thinking about sex, exploring the genital organs, and masturbating.
- The pubescent child intentionally refuses to communicate with others except when necessary. When questioned, he shuts out other people by answering, "I can't remember" or "I don't know."
- The pubescent is shy in the presence of *all* people, not only strangers. His shyness stems from anxiety over how others judge his changing body and behavior. See Figure 10–8 for a graphic illustration of the puberty "shy age."

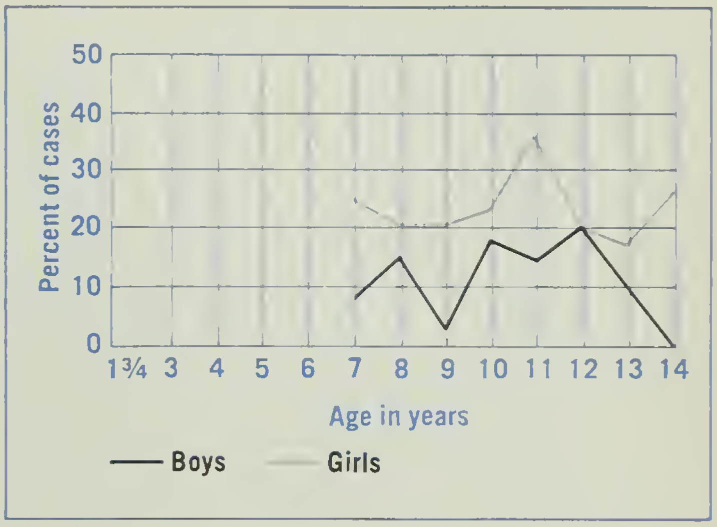


Figure 10–8. Shyness in childhood follows a different developmental pattern for boys and girls. (Adapted from J. Macfarlane, L. Allen, and M. P. Honzik, A developmental study of the behavior problems of normal children between twenty-one months and fourteen years, University of California Press, 1954. Used by permission.)

become a well-adjusted person. If he is thwarted in his attempts to gain status and this thwarting persists until his age-mates catch up to him, however, he is very likely to develop the habit of being antisocial —a habit which may persist into adult life.

This habit is even more likely to develop and persist in the *late maturer*. The child who lags behind his contemporaries in sexual maturing is usually treated by both age-mates and adults in accordance with his physical appearance rather than his chronological age and academic status. People treat him like a child because he looks like one. In his fight to gain the status he feels he deserves, he develops antisocial attitudes and patterns of behavior. The longer he lags behind in sexual maturing, the longer he reinforces his immature feelings and behavior through repetition.

DAMAGING ASPECTS OF ANTISOCIAL BEHAVIOR

Not only does the child lose ground in social development during puberty, but he also injures his social adjustments, his self-concept, and his reputation among peers, family members, and teachers by his negative behavior.

Most children are able to counteract the harm they have done and resume the upward trend in the curve of socialization with no permanent damage. As with any setback, however, more effort and time are necessary than would be required had the setback not occurred. There are three important reasons for this in the case of antisocial pubescent behavior.

First, the most difficult aspect of the upward climb is the rebuilding of broken friendships. Most pubescent quarrels with peers are verbal. A psychological hurt conditions a child to have an unfavorable attitude toward the person who inflicted the pain, even though he may forget the circumstances under which it was inflicted.

Second, negative-phase behavior gives the child a bad reputation. If his social milieu could be changed after the negative phase ended and if he could bury his old reputation and establish new friendships, the matter would not be so serious. But most children continue to live in the same neighborhood, attend the same school, and associate with the same people as they did during the negative phase. The job of building a new reputation is especially difficult because the pubescent child has behaved antisocially in so many groups that his bad reputation is widely known.

Third, the upward climb is steepest for the deviant maturer because he has a longer time to establish antisocial habits and to acquire an unfavorable reputation. In addition, the deviant child is subjected to greater criticism and disapproval from every social group than his age-mates are. Social criticism and disapproval at any age lead to poor self-acceptance. Thus the deviant maturer must *add* to the other tasks of improving his social adjustments that of improving his self-concept. This task is never easy, especially when a poor reputation makes social acceptance difficult.

In conclusion, it must be recognized that the impact of negative-phase behavior and attitudes *need not be unfavorable* after sexual maturity has been achieved. How damaging the phase will be and how persistently it will affect the child will depend to a large extent upon the kind of early foundations he has laid and the treatment he receives from parents, teachers, and peers as he passes through these difficult years.

Highlights of Chapter 10

1. Becoming socialized involves three processes: the development of proper performance behavior, the playing of approved social roles, and the development of social attitudes.

2. The kind of behavior the social group expects the child to develop is defined in terms of developmental tasks which vary somewhat for different social groups.

3. The child whose behavior conforms to social expectations makes better personal and social adjustments than the one whose behavior falls short of social expectations.

4. Essentials in socialization include opportunities for learning socially approved behavior, motivation to learn, and learning under proper guidance.

5. Early social experiences with family members and outsiders are important for five reasons: Social behavior, once established, tends to remain consistent; attitudes toward people and social activities tend to remain consistent; early social experiences determine the extent of the child's social participation when he is young as well as when he grows older; pleasant social interaction aid the child's acceptance by the group; early social experiences affect the child's personality.

6. The social group influences the child's socialization by encouraging him to conform to group ex-

pectations, by helping him to act independently, and by influencing his self-concept.

7. Knowing the pattern of social development makes it possible to predict social behavior at a given age and provides a timetable for helping the child develop the behavior and attitudes the social group expects him to develop at different ages.

8. The foundations of social behavior and attitudes are laid mainly through associations with adults.

9. Social behavior patterns developed in early childhood include negativism, aggression, quarreling, teasing, bullying, rivalry, cooperation, ascendant behavior, generosity, desire for social approval, sympathy, dependency, and friendliness.

10. In the school years, the gang plays a dominant role in socialization by helping the child learn how to get along with his age-mates, helping him develop a rational conscience, helping him to learn appropriate social attitudes, and helping him achieve personal independence.

11. The most important patterns of social behavior developed in late childhood include susceptibility to social approval and disapproval, suggestibility to group influences and contrasuggestibility to adult influences, competition, good sportsmanship, responsibility, social insight, social discrimination, prejudice, and sex antagonism.

12. During the early part of puberty, antisocial attitudes and behavior develop partly as a result of physical and glandular changes and partly as a result of environmental factors. This negative-phase behavior is normally only temporary and is especially pronounced in deviant sexual maturers.

Bibliography

1. Abel, H., and R. Sahinkaya: Emergence of sex and race friendship preferences. *Child Develpm.,* 1962, **33,** 939–943.
2. Ainsworth, M. D.: Patterns of attachment behavior shown by the infant in interaction with his mother. *Merrill-Palmer Quart.,* 1964, **10,** 51–58.
3. Allport, G. W.: *The nature of prejudice.* Reading, Mass.: Addison-Wesley, 1954.
4. Amatora, Sister M.: Developmental trends in pre-adolescence and early adolescence in self-evaluation. *J. genet. Psychol.,* 1957, **91,** 89–97.
5. Apperson, L. B.: Childhood experiences of schizophrenics and alcoholics. *J. genet. Psychol.,* 1965, **106,** 301–313.
6. Arter, P. M.: The effects of prejudice on children. *Children,* 1959, **6,** 185–189.
7. Ausubel, D. P.: Ego development among segregated Negro children. *Ment. Hyg., N. Y.,* 1958, **42,** 362–369.
8. Back, K. W., and K. E. Davis: Some personal and situational factors relevant to the consistency and prediction of conforming behavior. *Sociometry,* 1965, **28,** 227–240.
9. Bain, R.: Making normal people, *Marriage fam. Living,* 1954, **16,** 27–31.
10. Baldwin, A. L., C. P. Baldwin, I. R. Hilton, and N. W. Lambert: The measurement of social expectations and their development in children. *Monogr. Soc. Res. Child Develpm.,* 1969, **34,** no. 4.
11. Baldwin, C. P., and A. L. Baldwin: Children's judgments of kindness. *Child Develpm.,* 1970, **41,** 29–47.
12. Bandura, A., and R. B. Walters: Aggression. 62nd *Yearb. Nat. Soc. Stud. Educ.,* 1963, part 1, 364–415.
13. Banham, K. M.: Obstinate children are adaptable. *Ment. Hyg., N. Y.,* 1952, **36,** 84–89.
14. Bell, R. Q.: A reinterpretation of the direction of effects in studies of socialization. *Psychol. Rev.,* 1968, **75,** 81–95.
15. Bennett, E. M., and L. R. Cohen: Men and women: Personality patterns and contrasts. *Genet. Psychol. Monogr.,* 1959, **59,** 101–155.
16. Berkowitz, L., and P. Friedman: Some social class differences in helping behavior. *J. Pers. soc. Psychol.,* 1967, **5,** 217–225.
17. Biller, H. B.: A multiaspect investigation of masculine development in kindergarten age boys. *Genet. Psychol. Monogr.,* 1968, **78,** 89–138.
18. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row, 1966.
19. Bowerman, C. E., and J. W. Kinch: Changes in family and peer orientation of children between the fourth and tenth grades. *Soc. Forces,* 1959, **37,** 206–211.
20. Breger, L., and C. Ruiz: The role of ego-defense in conformity. *J. soc. Psychol.,* 1966, **69,** 73–85.
21. Broderick, C. B., and S. E. Fowler: New patterns of relationships between the sexes among preadolescents. *Marriage fam. Living,* 1961, **23,** 27–30.
22. Bryan, J. H., and N. H. Walbek: Preaching and practicing generosity: Children's actions and reactions. *Child Develpm.,* 1970, **41,** 329–353.
23. Child, I. L.: Socialization. In G. Lindzey (ed): *Handbook of social psychology.* Reading, Mass.: Addison-Wesley, 1954, pp. 655–692.

24. Church, J., and L. J. Stone: The early school years. *Children,* 1960, **7,** 113–114.

25. Clark, K.: *Prejudice and your child.* Boston: Beacon Press, 1963.

26. Collard, R. R.: Social and play responses of first-born and later-born infants in an unfamiliar situation. *Child Develpm.,* 1968, **39,** 325–334.

27. Colle, R. D.: Negro image in the mass media: A case study in social change. *Journalism Quart.,* 1968, **45,** 55–60.

28. Cooper, J. B.: Emotional response to statements congruent with prejudicial attitudes. *J. soc. Psychol.,* 1969, **79,** 189–193.

29. Crane, A. R.: The development of moral values in children. IV. Preadolescent gangs and the development of children. *Brit. J. educ. Psychol.,* 1958, **28,** 201–208.

30. DiBartola, R., and W. E. Vinacke: Relationship between adult nurturance and dependency and performance of the preschool child. *Develpm. Psychol.,* 1969, **1,** 247–251.

31. Dittes, J. E.: Attractiveness of group as function of self-esteem and acceptance by group. *J. abnorm. soc. Psychol.,* 1959, **59,** 77–82.

32. Dodge, N., and G. A. Muench: Relationship of conformity and the need for approval in children. *Develpm. Psychol.,* 1969, **1,** 67–68.

33. Doland, D. J., and K. Adelberg: The learning of sharing behavior. *Child Develpm.,* 1967, **38,** 695–700.

34. DuHamel, T. R., and H. B. Biller: Parental imitation and nonimitation in young children. *Develpm. Psychol.,* 1969, **1,** 772.

35. Dunbar, F.: Homeostasis during puberty. *Amer. J. Psychiat.,* 1958, 114, 673–683.

36. Eifermann, R. R.: Level of children's play as expressed in group size. *Brit. J. educ. Psychol.,* 1970, **40,** 161–170.

37. Emmerich, W.: Continuity and stability in early social development. II. Teachers' ratings. *Child Develpm.,* 1966, **37,** 17–27.

38. Engel, M., G. Marsden, and S. Woodaman: Orientation to work in children. *Amer. J. Orthopsychiat.,* 1968, **38,** 137–143.

39. Fagot, B. I., and G. R. Patterson: An in vivo analysis of reinforcing contingencies for sex-role behaviors in the preschool child. *Develpm. Psychol.,* 1969, **1,** 563–568.

40. Feigenbaum, K. D., D. Geiger, and S. Crevoshay: An exploratory study of the 3-, 5-, and 7-year old female's comprehension of cooperative and uncooperative social interaction. *J. genet. Psychol.,* 1970, **116,** 141–148.

41. Feshbach, N. D., and S. Feshbach: The relationship between empathy and aggression in two age groups. *Develpm. Psychol.,* 1969, **1,** 102–107.

42. Feshbach, S.: Aggression. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 159–259.

43. Friedman, S. T.: Relation of parental attitudes toward child rearing and patterns of social behavior in middle childhood. *Psychol. Rep.,* 1969, **24,** 575–579.

44. Fryrear, J. L., and M. H. Thelon: Effect of sex model and sex of observer on the imitation of affectionate behavior. *Develpm. Psychol.,* 1969, **1,** 298.

45. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.

46. Gibbons, J. L.: Meanings of aggressive hostility in children. *Pastoral Psychol.,* 1969, **20,** 31–38.

47. Gilbert, D. C.: The young child's awareness of affect. *Child Develpm.,* 1969, **40,** 629–640.

48. Goldberg, S., and W. Lewis: Play behavior in the year old infant: Early sex differences. *Child Develpm.,* 1969, **40,** 21–31.

49. Gondor, L. H., and E. I. Gondor: Changing times. *Amer. J. Psychother.,* 1969, **23,** 67–76.

50. Hamm, N. H., and K. L. Hoving: Conformity of children in an ambiguous perceptual setting. *Child Develpm.,* 1969, **40,** 773–784.

51. Hampe, E., and W. Kennedy: Modification of dominant behavior in school children: An attempted replication. *Psychol. Rep.,* 1968, **23,** 743–750.

52. Handlon, B. J., and P. Gross: The development of sharing behavior. *J. abnorm. soc. Psychol.,* 1959, **59,** 425–428.

53. Harris, D. B., and C. S. Tseng: Children's attitudes toward peers and parents as revealed by sentence completions. *Child Develpm.,* 1957, **28,** 401–411.

54. Harris, L.: Looks by preschoolers at the experimenter in a choice-of-toys game: Effects of experimenter and age of child. *J. exp. Child Psychol.,* 1968, **6,** 493–500.

55. Harris, M. B.: Reciprocity and generosity: Some determinants of sharing in children. *Child Develpm.,* 1970, **41,** 313–328.

56. Hartley, R. E.: A developmental view of female sex-role definition and identification. *Merrill-Palmer Quart.,* 1964, **10,** 3–16.

57. Hartup, W. W.: Peer interaction and social organization. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 361–456.

58. Havighurst, R. J.: *Human development and education.* New York: Longmans, 1953.

59. Hawk, T. L.: Self-concepts of the socially disadvantaged. *Elem. Sch. J.,* 1966, **67,** 196–206.

60. Hess, R. D.: Social class and ethnic influences upon socialization. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 457–557.

61. Hill, D. L., and R. H. Walters: Interaction of sex of subject and dependency-training procedures in a social reinforcement study. *Merrill-Palmer Quart.,* 1969, **15,** 185–198.

62. Hollander, E. P., and J. E. Marcia: Parental determinants of peer-orientation and self-orientation among preadolescents. *Develpm. Psychol.,* 1970, **2,** 292–302.

63. Jacobs, R. H.: Mobility pains: A family in transition. *Family Coordinator,* 1969, **18,** 129–134.

64. Janney, F., S. Mallory, R. Rissitto, and J. Simon: Conformity as a function of race and age. *Psychol. Rep.,* 1969, **25,** 591–597.

65. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36,** 899–911.

66. Jones, S. C., and J. S. Shranger: Reputation and self-evaluation as determinants of attractiveness. *Sociometry*, 1970, **33**, 276–286.

67. Kagan, J., and H. A. Moss: *Birth to maturity: A study in psychological development.* New York: Wiley, 1962.

68. Kim, C. C., R. J. Dales, R. Connor, W. Walters, and R. Witherspoon: Social interaction of like-sex twins in relation to intelligence, language and physical development. *J. genet. Psychol.*, 1969, **114**, 203–214.

69. Koch, H. L.: The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. *Monogr. Soc. Res. Child Develpm.*, 1960, **25**, no. 4.

70. Koch, J.: Conditioned orienting reactions to persons and things of 2-5 month old infants. *Hum. Develpm.*, 1968, **11**, 81–91.

71. Kozma, A.: The effects of anxiety, stimulation and isolation on social reinforcer effectiveness. *J. exp. Child Psychol.*, 1969, **8**, 1–8.

72. Krebs, D. L.: Altruism: An examination of the concept and a review of the literature. *Psychol. Bull.*, 1970, **73**, 258–302.

73. Lang, C.: Kids who crave approval. *The New York Times*, Oct. 18, 1970.

74. LaVine, R. A.: Cross-cultural study in child psychology. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 2, 559–612.

75. Lee, H.: *To kill a mocking bird.* Philadelphia: Lippincott, 1960.

76. Lewis, M.: Infants' responses to facial stimuli during the first year of life. *Develpm. Psychol.*, 1969, **1**, 75–86.

77. Litcher, J. H., and D. W. Johnson: Changes in attitudes toward Negroes of white elementary school students after use of multiethnic readers. *J. educ. Psychol.*, 1969, **60**, 148–152.

78. Luchins, A. S., and E. H. Luchins: Effects of preconceptions and communications on the impressions of a person. *J. soc. Psychol.*, 1970, **81**, 243–252.

79. Maccoby, E. E., and J. C. Masters: Attachment and dependency. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 2, pp. 73–157.

80. MacDonald, A. P.: Anxiety, affiliation and social isolation. *Develpm. Psychol.*, 1970, **3**, 242–254.

81. Macfarlane, J., L. Allen, and M. P. Honzik: *A developmental study of the behavior problems of normal children between twenty-one months and fourteen years.* Berkeley: University of California Press, 1954.

82. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.*, 1961, **75**, no. 5.

83. Masters, J. C.: Effects of social comparison upon subsequent self-reinforcement behavior in children. *J. Pers. soc. Psychol.*, 1968, **10**, 391–401.

84. McCandless, B. R., and J. M. Hoyt: Sex, ethnicity, and play preferences of preschool children. *J. abnorm. soc. Psychol.*, 1961, **62**, 683–685.

85. McGovern, G.: The child and the American future. *Amer. Psychologist*, 1970, **25**, 157–160.

86. McRae, K. N., and S. G. Lowe: Aggressive behavior in the preschool child. *J. Pediat.*, 1968, **72**, 821–828.

87. Midlarsky, E., and J. H. Bryan: Training charity in children. *J. Pers. soc. Psychol.*, 1967, **4**, 408–415.

88. Mischel, W.: Sex-typing and socialization. In P. H. Mussen (ed): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 2, pp. 3–72.

89. Moore, S., and R. Updegraff: Sociometric status of preschool children related to age, sex, nurturance-giving, and dependency. *Child Develpm.*, 1964, **35**, 519–524.

90. Morland, J. K.: Racial acceptance and preference in nursery school children in a Southern city. *Merrill-Palmer Quart.*, 1962, **8**, 271–280.

91. Moss, H. A., K. S. Robson, and F. Pedersen: Determinants of maternal stimulation of infants and consequences of treatment for later reactions to strangers. *Develpm. Psychol.*, 1969, **1**, 239–246.

92. Mummery, D. V.: Family backgrounds of assertive and nonassertive children. *Child Develpm.*, 1954, **25**, 63–80.

93. Murphy, L. B.: *Personality in your children.* New York: Basic Books, 1957.

94. Mussen, P. H., J. J. Conger, and J. Kagan: *Child development and personality*, 3d ed. New York: Harper & Row, 1969.

95. Mussen, P. H., R. E. Stephen, and C. B. Keasey: Honesty and altruism among preadolescents. *Develpm. Psychol.*, 1970, **3**, 169–194.

96. Nakamura, C. Y., and M. M. Rogers: Parents' expectations of autonomous behavior and children's autonomy. *Develpm. Psychol.*, 1969, **1**, 613–617.

97. Nelson, J. D., D. M. Gelfand, and D. P. Hartmann: Children's aggression following competition and exposure to an aggressive model. *Child Develpm.*, 1969, **40**, 1085–1097.

98. Ogletree, E.: Skin color preference of the Negro child. *J. soc. Psychol.*, 1969, **79**, 143–144.

99. Olpin, M., and K. L. Kogan: Child meets child: Social interaction between school-age boys. *Percept. mot. Skills*, 1969, **28**, 751–754.

100. Orcutt, L. E.: Conformity tendencies among three-, four-, and five-year-olds in an impersonal situational task. *Psychol. Rep.*, 1968, **23**, 387–390.

101. Paskal, V.: The value of imitative behavior. *Develpm. Psychol.*, 1969, **1**, 463–469.

102. Patterson, G. R., R. A. Littman, and W. Bricker: Assertive behavior in children: A step toward a theory of aggression. *Monogr. Soc. Res. Child Develpm.*, 1967, **32**, no. 5.

103. Phillips, D. L.: Social participation and happiness. *Amer. J. Sociol.*, 1967, **72**, 479–488.

104. Raph, J. B., A. Thomas, S. Chess, and S. J. Korn: The influence of nursery school on social interactions. *Amer. J. Orthopsychiat.*, 1968, **38**, 144–152.

105. Reese, H. W.: Attitudes toward the opposite sex in late childhood. *Merrill-Palmer Quart.*, 1966, **12**, 157–163.

106. Rhine, W. R.: Birth order differences in conformity and level of achievement arousal. *Child Develpm.*, 1968, **39**, 987–996.

107. Ricciuti, H. N.: Social and emotional behavior in infancy: Some developmental trends and problems. *Merrill-Palmer Quart.*, 1967, **14**, 82–100.

108. Richardson, S. A., and J. Royce: Race and physical handicap in children's preference for other children. *Child Develpm.*, 1968, **39**, 467–480.

109. Rodman, H., F. R. Nichols, and P. Voydanoff: Lower-class attitudes toward "deviant" family patterns: A cross-cultural study. *J. Marriage & Family*, 1969, **31**, 316–321.

110. Rutherford, E., and P. H. Mussen: Generosity in nursery school boys. *Child Develpm.*, 1968, **39**, 755–765.

111. Salmon, P.: Differential conformity as a developmental process. *Brit. J. soc. clin. Psychol.*, 1969, **8**, 22–31.

112. Saltzstein, H. D., and R. M. Diamond: Transfer of social influence of peer's sex. *Psychol. Rep.*, 1967, **20**, 343–350.

113. Scarr, S.: Social introversion-extraversion as a heritable response. *Child Develpm.*, 1969, **40**, 823–832.

114. Sears, R. R.: Relation of early socialization experiences to self-concepts and gender role in middle childhood. *Child Develpm.*, 1970, **41**, 267–289.

115. Shortell, J. R., and H. B. Biller: Aggression in children as a function of sex of subject and sex of opponent. *Develpm. Psychol.*, 1970, **3**, 143–144.

116. Shure, M. B.: Fairness, generosity, and selfishness: The naive psychology of children and young adults. *Child Develpm.*, 1968, **39**, 875–886.

117. Siegelman, M.: "Origins" of extraversion-introversion. *J. Psychol.*, 1968, **69**, 85–91.

118. Staub, E., and L. Sherk: Need for approval, children's sharing behavior and reciprocity in sharing. *Child Develpm.*, 1970, **41**, 243–252.

119. Stevenson, H. W., G. A. Hale, K. T. Hill, and B. E. Mody: Determinants of children's preferences for adults. *Child Develpm.*, 1967, **38**, 1–14.

120. Steward, C. W.: Behind the mask of conformity. *Pastoral Psychol.*, 1969, **20**, 8–13.

121. Stone, L. J., and J. Church: *Childhood and adolescence*, 2d ed. New York: Random House, 1968.

122. Strang, R. M.: *An introduction to child study*, 4th ed. New York: Macmillan, 1959.

123. Thompson, W. R., and J. E. Grusee: Studies of early experience. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 1, pp. 565–654.

124. Toigo, R.: Social status and schoolroom aggression in third grade children. *Genet. Psychol. Monogr.*, 1965, **71**, 221–268.

125. Torrance, E. P.: Peer influences on preschool children's willingness to try difficult tasks. *J. Psychol.*, 1969, **72**, 189–194.

126. Triandis, H. C., and V. Vassiliou: Frequency of contact and stereotyping. *J. Pers. soc. Psychol.*, 1967, **7**, 316–328.

127. Utech, D. A., and K. L. Hoving: Parents and peers as competing influences in the decisions of children of different ages. *J. soc. Psychol.*, 1969, **78**, 267–274.

128. Vogler, R. E., M. M. Masters, and G. S. Merrill: Shaping cooperative behavior in young children. *J. Psychol.*, 1970, **74**, 181–186.

129. Vroegh, K.: Masculinity and femininity in the preschool years. *Child Develpm.*, 1968, **39**, 1253–1257.

130. Wahrman, R.: High status, deviance, and sanctions. *Sociometry*, 1970, **33**, 485–504.

131. Ward, W. D.: Variance of sex-role preference among boys and girls. *Psychol. Rep.*, 1968, **23**, 467–470.

132. Waxler, C. Z., and M. R. Yarrow: Factors influencing imitative learning in preschool children. *J. exp. Child Psychol.*, 1970, **9**, 115–130.

133. Werner, N. E., and I. M. Evans: Perception of prejudice in Mexican-American preschool children. *Percept. mot. Skills*, 1968, **27**, 1039–1046.

134. Williams, J. E., and C. D. Edwards: An exploratory study of color and racial concepts in preschool children. *Child Develpm.*, 1969, **40**, 737–750.

135. Williams, R. L., and H. Byars: Negro self-esteem in a transitional society. *Personnel Guid. J.*, 1968, **47**, 120–125.

136. Willis, R. H.: Conformity, independence, and anticonformity. *Hum. Relat.*, 1965, **18**, 373–388.

137. Wodtke, K. H., and B. R. Brown: Social learning and imitation. *Rev. educ. Res.*, 1967, **37**, 514–538.

138. Zelazo, P. R.: Smiling to social stimuli: Eliciting and conditioning effects. *Develpm. Psychol.*, 1971, **4**, 32–42.

139. Zigler, E., E. C. Butterfield, and F. Capobianco: Institutionalization and the effectiveness of social reinforcement: A five- and eight-year follow-up study. *Develpm. Psychol.*, 1970, **3**, 255–263.

140. Zohner, D.: Environmental discontinuity, stress and sex effects upon suggestibility to social influence. *J. genet. Psychol.*, 1970, **116**, 211–217.

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CHAPTER ELEVEN Social Adjustments

IN A CULTURE that puts a high value on social adjustments, as in America today, parents and teachers provide the child with opportunities to learn to make good adjustments. They motivate him to do so by rewarding him with approval when he comes up to their expectations.

Most parents realize that there is a close relationship between a child's social adjustments and his happiness. Middle-class parents are especially concerned because they are future-oriented. They feel that their children will be happier if they are popular with both girls and boys, and they begin to provide social experiences involving members of both sexes even before childhood ends. They feel that good social adjustments will lead to successful marriage and will be a stepping-stone to success in business and to upward social mobility. Thus, they urge their sons to belong to gangs and be "regular boys." Today's teachers are more concerned about behavior that leads to poor adjustment than about behavior that disrupts the smooth running of the classroom. Most teachers know, from their classroom experience, that children who make good social adjustments tend to be more successful academically.

The attention given to good adjustments in childhood is justified because the behavior and attitudes developed and approved at that time persist. They persist because any behavior that is rewarded by social approval gives satisfaction to the child, is repeated, and soon becomes habitual.

The kind of social adjustment the child makes also leaves its mark on his self-concept. This, likewise, contributes to its persistence. A child who makes good social adjustments develops a favorable self-concept; if other people like him, he likes himself. By contrast, the child who makes poor social adjustments is unhappy and dislikes himself. As a result, he may develop into a self-centered, introverted, unsocial, or antisocial person whose adult happiness and success are seriously jeopardized (10, 38, 49).

Meaning of Social Adjustment

Social adjustment means the success with which a person adjusts to people in general and to the group with which he is identified in particular. A well-adjusted person has learned such social skills as the ability to deal diplomatically with people—both friends and strangers—so that their attitudes toward him will be favorable and they will want to accept him. He has developed good social attitudes, such as a willingness to help others, even if he is personally inconvenienced. He is not self-bound.

Children are *expected* to become better adjusted to social life each year and to conform to the social expectations for their age. No one expects a baby to be a well-adjusted person; he is too self-bound to consider others and too ignorant of social expectations to know how to conform to socially approved patterns of behavior. The older child, however, is judged more critically.

CRITERIA OF SOCIAL ADJUSTMENT

To determine how well adjusted the child is socially, four criteria must be applied; any one applied alone is inadequate. These four criteria are given in Box 11-1.

It is not easy to apply these criteria and be sure that the results obtained are true indications of the kind of social adjustment the child has made. Since social acceptance is an indication of how closely the child's behavior conforms to social expectations, one can determine the progress the child has made toward good social adjustment by finding out what others think of him. How well is he accepted by the peer group? How do his teachers evaluate him? Does he play the role of leader, follower, or rejectee in the peer group?

The first two criteria—overt performance and ability to adjust to various groups—can be applied fairly successfully. Objective techniques of assessing attitudes and satisfactions, however, are more difficult. One must ask the child what his attitudes are, how much he likes social activities, and how people treat him. Or one must try to *infer* his attitudes and satisfactions from what he says about himself, about other people, and about group activities. When a child says that he does not want to go out to play with other children, for example, that their play bores him, or that he would rather read or watch television, it is obvious that he derives less satisfaction from social than from solitary activities.

A word of caution is needed about inferring too much about social adjustment from what a child says or does. Only when there is a *consistent* pattern of behavior is it safe to predict that this is a true indication of attitudes. The child who claims, day after day, that he does not want to play with other children but prefers to do things at home has unquestionably developed an unfavorable attitude. Many children, however, when annoyed or angry, say things that they actually do not mean or that they mean only at that time. Later, they may even claim they never said them. Evidence from studies of prejudice reveals that many children, especially those who feel insecure in their social relationships, behave in a discriminatory way. When the majority of their peers treat minority-group peers as inferiors, many children will follow the crowd in the hope of increasing their acceptance by the peers whose approval they crave. (This kind of behavior was discussed in Chap. 10 in the section on prejudice.)

DIFFICULTIES IN MAKING GOOD SOCIAL ADJUSTMENTS

Making good social adjustments is far from easy. As a result, many children are poorly adjusted both socially and personally. Their childhood is unhappy, and unless they learn how to overcome their difficulties, they will grow up to be unhappy, maladjusted adults.

Many conditions contribute to the difficulties children experience in making good social adjustments, but two are paramount.

First, if poor patterns of social behavior are developed in the home, the child will find it difficult to make good social adjustments outside the home even though he may be strongly motivated to do so. The child brought up by authoritarian methods, for example, frequently develops attitudes of resentment toward all in authority. With too permissive training in the home, the child comes to disregard the wishes of others, feeling that he can be a law unto himself.

Second, if the home provides poor models for the child to imitate, he will be seriously handicapped in his outside social adjustments. The child who is rejected by his parents or who imitates deviant parental behavior may develop an unstable, aggressive personality, which will push him into revengeful acts or even into criminality.

Role of Companions in Social Adjustments

Every child wants and needs the companionship of people if he is to develop into a personally and socially well-adjusted individual. The need for companionship is shown early in life when the baby cries until someone comes to be with him. As the child grows older, the need increases.

KINDS OF COMPANIONS

Different companions play different roles in the socialization process. If the child's companions are appropriate for his age and level of development, they will contribute heavily to good social adjustments. If they are developmentally inappropriate, they will not only interfere with his social adjustments but will also contribute to poor personal adjustments and add to his unhappiness.

Children's companions may be divided into three major classifications; each influences socialization at different periods. These three kinds of companions and their characteristics are explained in Box 11-2.

PATTERN OF COMPANIONSHIP NEEDS

The kind of people who meet the child's companionship needs is determined by the stage of his social development. In the gregarious stage of early babyhood, the *baby* is satisfied with associates who are available for him to watch and listen to. What little social interaction occurs is initiated by others more often than by the baby.

Before the baby is a year old, he wants playmates as well as associates. Adults and older children are

Box 11-1

CRITERIA OF SOCIAL ADJUSTMENT

- *Overt performance.* When the child's social behavior, as judged by the standards of the group with which the child is identified, comes up to group expectations, he will be accepted by the group.
- *Adjustment to any group.* The child who can adjust to any group with which he comes in contact is regarded as well adjusted.
- *Social attitudes.* The child must exhibit favorable attitudes toward people, toward social participation, and toward his role in the social group if he is to be judged a well adjusted person.
- *Personal satisfaction.* To be well adjusted, the child must be reasonably satisfied with his social contacts and with the role he plays in social situations.

preferred companions during the last half of the first year and the second year. They satisfy the baby's desire for playmates because they will play with him when he wants to be played with and in the way he wants. A baby of his own age will not cater to his egocentric needs. The 1- or 2-year old is definitely family-oriented in his choice of companions.

In the *preschool* years, companions are usually adults in the family, siblings, and, later, children from the immediate neighborhood or the nursery school, kindergarten, or Sunday school group with which the child is identified. Adults in the family and siblings often serve as playmates. Between the ages of 2 and 4 years, the child finds that family members are unable or unwilling to devote enough time to playing with him to meet his companionship needs. As a result, he craves the companionship of his peers. Not having had an opportunity to learn to play with them in a cooperative way, however, he at first merely watches them or joins them in parallel play—playing independently beside them but not with them. His peers are thus associates, not playmates.

Gradually, with more opportunities to be with his peers, the child learns how to play with them. He enters the "associative play stage" of social development in which he plays with other children in similar if not identical activities. Much of the time he is still an onlooker. Consequently, his companions are more often associates than playmates.

Before the child is 4 years old, he normally wants his companions to be his playmates, and he tries to engage in play activities with them. The child now selects one or two children from those who are available, and prefers to play with them. At first, they may be of either sex, but even before he is ready to enter school, he shows a preference for playmates of his own sex. They have more interests in common with him because they, like he, will have learned, through social pressures, to play in a sex-appropriate way. At this time, also, the child begins to show a preference for playmates of his own racial and religious groups because, as is true of playmates of his own sex, they have more play interests in common.

In the strictest sense, the young child's companions cannot be called his "friends" even though he often uses this label. They are not friends because there is little communication between them. In the discussion of speech development in Chapter 8, it was explained that the talk young children engage in when they are playing with peers is mainly egocentric, not social. They may engage in name calling, boasting, and criticism, but there is seldom an exchange of ideas and rarely an exchange of confidences.

When the child *enters school* and begins to be interested in group play, he sets up new criteria, in addition to old ones, for the selection of playmates. He must select his playmates from the immediate neighborhood in which he lives, but within this neighborhood, he prefers children of the same size, sex, chronological age, mental age, social maturity, and interests (1, 11, 92). As he grows older, personality traits become important, especially such traits as cheerfulness, generosity, friendliness, cooperativeness, honesty, even-temperedness, sense of humor, and good sportsmanship (46, 50).

The older child shows a definite preference for playmates of his own racial group. By the fifth grade, he also takes socioeconomic status into consideration (30, 50, 97). In the lower social classes, the child has more freedom in the selection of playmates than in the middle classes, where parents pressure the child to choose the "right" playmates. Thus the lower-class child often finds himself barred from participation in social activities with children of the middle class and is forced to select his playmates mainly from his own social class (17, 62). Regardless of social class, almost every child likes to have playmates who are successful in games and who, as a result, have

Box 11–2

COMPANIONS IN CHILDHOOD

- *Associates* are people who satisfy the child's companionship needs by being in his environment. He can watch and listen to them, but has no direct interaction with them. They may be of any age or either sex.
- *Playmates* are people with whom the child engages in pleasurable activities. They may be of any age or either sex, but the child ordinarily derives greater satisfaction from those of his own age and sex whose play interests are similar to his.
- *Friends* are people with whom the child can not only play but also *communicate* by exchanging ideas and confidences, asking advice, and criticizing. Children of his own age, sex, and level of development are preferred.

prestige in the eyes of the peer group. From associating with them, the child feels that his own prestige is increased (69).

During late childhood, boys and girls select from their playmates those who are most congenial to them and with whom they can communicate as well as play. These children then become their friends. Girls tend to prefer friends who are similar to them, while boys select those who are complementary (97). A girl, for example, derives greater satisfaction from the friendship of another girl whose interests and abilities are similar to hers, while a boy looks for friends who have characteristics he admires but lacks. A boy with mediocre play skills may develop a warm personal relationship with a boy who is a good athlete. The athlete, may in turn, derive satisfaction from the hero worship of his nonathletic friend and from not having to compete with him for prestige in the peer group.

Each year, the need for friends becomes stronger, reaching a peak when the puberty changes begin. As interest in play decreases, owing to the physical changes which sap the pubescent child's energy, and as anxiety about these changes increases, the child wants a confidante rather than a playmate. Since family members rarely meet his needs for companionship at this age, the pubescent child chooses as friends members of his former gang or adults who "understand" him and welcome his confidences.

QUALITIES NEEDED FOR SUCCESSFUL COMPANIONSHIP

Whether companions play the role of associates, playmates, or friends, they must have certain qualities if they are to satisfy the child's needs. Some of these qualities are important in all three companionship roles; others, in only one or two of the roles.

Of these qualities, three stand out. They are listed in Box 11–3 together with an explanation of the way they help meet the child's companionship needs.

NUMBER OF COMPANIONS

How many companions a child should have to satisfy his companionship needs will vary with his age and developmental level. As a general rule, the number increases as the child grows older. The preschool child is happy with one or two playmates, either family members or peers. The gang-age child needs three or four, and the number increases as gang play becomes more highly organized. But, by puberty, one companion who can play the role of a trusted friend—or, at the most, two—will usually be adequate.

Within an age group, children differ in the number of companions required to satisfy their companionship needs. As Barclay (8) has pointed out:

> *Some children prefer the company of one or two close friends because they share a deep and genuine understanding, a real mutuality of interests. Others may team-up with an easygoing pal because the bigger group is too demanding, too rough on their illusions or self-deceptions, too unpredictable to be borne with comfort. . . . There are those who thrive on the variety and stimulation a big group offers. And there are others, unsure of themselves and their opinions, who shrink from close relationships . . . and seek comfort and safety in doing what the crowd dictates.*

SUBSTITUTE COMPANIONS

When a strong need for companionship is not satisfied, the child will find substitutes. An older child who does

Box 11–3

QUALITIES ESSENTIAL TO THE SATISFACTION OF COMPANIONSHIP NEEDS

Interest in and Affection for the Child

In all three kinds of companions, the child must feel that he is the recipient of interest and affection. The interest and affection however, must be appropriate for the child's development level, or they will frustrate his companionship needs.

Similarity of Interests

Interests in common lead to a comfortable feeling of being at home with others, and this facilitates communication and expressions of affection. This is true of all companions, but especially of friends.

Similarity of Values

A child has more respect for and greater congeniality with those who see things from the same frame of reference as he and, as a result, "speak his language." This is true of playmates as well as friends, because similar values contribute to enjoyable play just as they contribute to successful communication.

not win the acceptance of the peer group may fall back on the family. If this does not provide him with adequate satisfaction, he will seek other substitutes. The substitutes he chooses will depend upon his age and upon what is available. Young children generally find imaginary playmates a satisfactory substitute for real playmates. Older children, who have outgrown, mentally, the ability to endow imaginary companions with the life qualities of real friends, are more likely to turn to a pet.

Imaginary Companions. To the young child, imaginary companions are lifelike, possessing names, physical characteristics, and the ability to do things one normally associates with real children. The child derives keen pleasure from playing with his imaginary playmates because they fill a gap in his social life.

The usual age for imaginary companions is between 3 and 4 years, with 3½ years the high point. By the time the child enters school and has playmates of his own, he usually abandons his imaginary companions, though he may occasionally play with them when he is lonely. The common characteristics of imaginary companions, the kind of child who usually has them, and many related matters will be discussed in Chapter 13.

Pets. All children enjoy the companionship of pets and regard them as playmates with whom they can romp and play when they have no human companions. While young children like pets of all kinds—hamsters, mice, turtles, rabbits, chameleons, or birds—the older child gains little satisfaction from pets that do nothing to show their affection for him or to hold his attention. Instead, he wants playmates. He finds a dog or a cat a far more satisfactory substitute for human playmates than the pets he liked when he was younger.

Studies reveal that children's interest in dogs and cats increases rapidly from 7 to 14 years, with a peak around the twelfth year. Both boys and girls prefer dogs to cats. Cats have a large enough repertoire of activities to make them interesting companions, but they are egocentric animals that show little affection for anyone, even the person who takes care of them. Dogs, by contrast, show great affection for their masters (3, 14, 65).

HOW COMPANIONS SOCIALIZE CHILDREN

Associates, playmates, and friends are valuable to a child for two reasons: *First,* they give him satisfaction by *fulfilling his need for companionship,* and *second,* they contribute heavily to the *socialization process* begun in the home. If the child has companions who give him personal satisfaction and help him learn to behave in a socially approved manner, he will live up to society's expectations.

All three kinds of companions contribute to the child's socialization, though the roles they play differ. From imitating his associates, the child learns patterns of behavior that lead to good or poor social adjustment. If, for example, he imitates aggressive associates, either adults or peers, that will militate against good adjustments with his playmates.

From his playmates, the child learns patterns of behavior that he uses in adjusting to social situations. He learns to be a good or poor sport, to cheat or to play fairly, to be kind to those who are different or to discriminate against them, and to play the role of leader or follower successfully or unsuccessfully.

Above all other kinds of companions, friends exert the greatest influence on the child's socialization. The contribution of friends has been explained in this way by Barclay (8):

> *Good friends—either in one's or two's or by the group—offer companionship in pleasure and comfort in pain. They broaden or sharpen one another's interests; enhance one another's fun. They provide sounding boards for the exploration of ideas too personal (or too fantastic) to discuss with adults; mirrors in which to evaluate the effectiveness of new approaches; measuring sticks by which to judge the value of new attitudes. They represent standards of comparison against which youngsters can gauge personal progress and growth. They act as allies, supporting one another as they test their ability to resist adults—a difficult but necessary part of developing independence. They understand. They appreciate.*

Some children can be satisfied with one companion while others need a larger group. The number, however, is not as important as having the right *kind*—associate, playmate, or friend—at the right time.

Several friends can generally contribute more to the child's socialization than one, because each can contribute something different. One friend may help a child to see why he should act in a sex-appropriate way, another may show him the value of being cooperative instead of aggressive, and still another may help him to develop social insight and learn to be sympathetic. A single child, no matter how desirable a friend he may be, is too young and inexperienced to do the entire job of socializing his friend; a group, made up of children of different interests and backgrounds, can do the job better.

As to the children themselves—those who are expected to help socialize the child—some have a good influence, whereas others, with equally good family backgrounds, can have an undesirable influence. As Barclay has pointed out, "Some relationships, individual and group, are—like it or not—'poison.' Through the mysterious action of group dynamics even 'thoroughly nice' youngsters can bring out the worst in each other. When reasonable efforts at guidance fail the only answer may be to break it up" (8).

Some children, if they feel inadequate, seek out companions whose behavior they admire because it contains the elements their own behavior lacks. The quiet, self-effacing child, for example, may try to win the friendship of one who is as daring and reckless as he is timid. Should such a child accept the admiration of the quiet child, the influence he will have on the quiet friend may lead to good or to poor social adjustments. If he tries to "reform" the quiet child by daring him to do things he is too timid to do on his own, the daredevil may either increase the quiet child's feeling of inadequacy or convince him that he is more worthy than he thought.

Although pets as substitute companions do not have a direct socializing influence on the child, they are often effective social aids. The companionship of a pet, for example, helps the timid child make many contacts with children and adults that he would hesitate to initiate if he were alone. Furthermore, the give-and-take relationship that the child has with a pet does not foster the development of the unsocial traits so often found among children who have substituted imaginary playmates for real ones.

In addition to this slight contribution to the child's socialization, a pet gives companionship to a child who is, for conditions beyond his control, deprived of the companionship he craves. In a pet, especially in a dog, the child finds an outlet for his affection. The child-pet relationship also serves as a source of ego satisfaction for the child and helps to fulfill his desire for dominance. All of these, either directly or indirectly, contribute to the kind of social adjustment the child makes.

Shifts in Childhood Companions

Children's companions come and go. This is true of associates, playmates, and friends. In parallel play, the young child may play side by side with one child today, another tomorrow, and still another the next day. When his play becomes cooperative, he shifts from one playmate to another and from one group to another. Until the child learns to get along with others with a minimum of quarreling, his friendships are also likely to be short-lived.

The coming and going of companions throughout the childhood years is not due to one cause alone. It

Box 11-4

WHY CHILDHOOD COMPANIONS COME AND GO

Changes in Interests

As interests in play activities, academic work, or conversational topics change, children shift to companions whose interests are similar to theirs.

Changes in Values

With changed interests and with greater maturity of behavior, children attach importance to different play activities or ways of behaving in social situations. They then choose companions whose values match their own.

Antisocial Behavior

A child whose behavior is antisocial beyond the time when his age-mates begin to behave in a more socially approved way finds his former playmates and friends shifting to companions whose behavior is more socialized than his.

Lack of Social Insight

A child whose social insight is less developed than that of his age-mates is regarded by his friends as tactless and heartless. When he fails to show sympathy for their distress, they reject him.

Pressures from Others

Parental or peer pressures to select other playmates or friends, because of their sex, religion, race, socioeconomic status, or characteristic patterns of behavior, often cause children to give up an old companion in favor of one approved by parents or peers.

Social Mobility

When a child's family moves up or down the social ladder and goes into a new neighborhood or new community, the child is forced to find new companions.

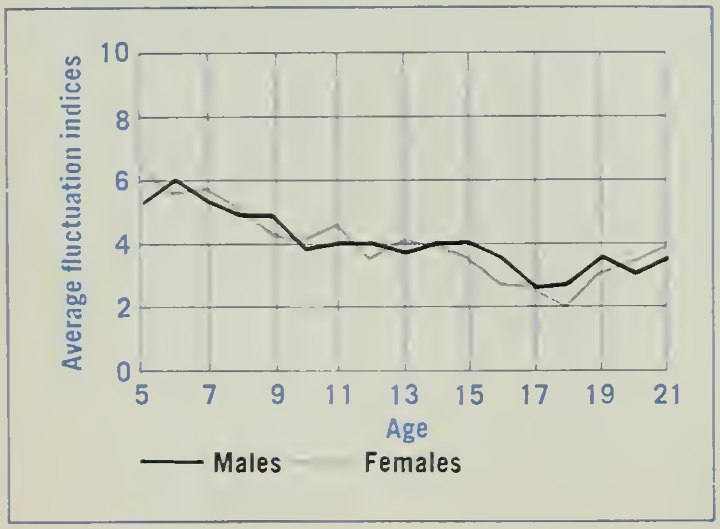
depends upon the age of the child, his personality, and many other conditions, the most important of which are given in Box 11-4.

While children change companions frequently at all ages, shifts are more frequent and more noticeable at some ages than others. Around the age of 5 years, there is a marked shift as children begin to prefer playmates of their own sex. Boys drop their girl playmates, and when girls must then choose new playmates, they generally select members of their own sex.

During the gang age of late childhood, shifts in playmates and friends are common. Today's playmate is replaced by a different one tomorrow, a best friend becomes an enemy, or a casual acquaintance becomes a best friend—quickly and often for little reason. At no time are shifts more frequent and more pronounced than at puberty. The antisocial behavior of a pubescent child frequently leads to the breaking up of friendships that have persisted for years. Figure 11-1 shows the pattern of fluctuations in children's playmates and friends from 5 years until the end of adolescence. Note that, for both boys and girls, the shifts gradually decrease as childhood progresses and then remain relatively constant throughout adolescence.

While *boys* begin to shift playmates earlier and do so more frequently than girls, girls show an earlier stability in the choice of both playmates and friends.

Figure 11-1. Friendship fluctuations throughout childhood and adolescence. (Adapted from C. A. Skorepa, J. E. Horrocks, and G. G. Thompson, A study of friendship fluctuations of college students, J. genet. Psychol., 1963, **102**, *151-157. Used by permission.)*



Since girls mature earlier, both physically and emotionally, this leads to greater stability in interests and and values—and in companions. In addition, girls are less aggressive than boys at every age; thus, one of the main causes of fluctuations is minimized (42, 77, 96).

When there are plenty of *children available* for playmates or friends, as when a child enters school, he can afford to break off relationships and not find himself companionless. Consequently, as his interests and values change and he no longer derives satisfaction from his former companions, he breaks off his old ties and establishes new ones with children who meet his companionship needs better.

With broader social experiences, the child normally increases his *social insight,* thus removing one of the causes of shifts in companions. With greater social insight, the child selects his playmates and friends more carefully, choosing them because they have common interests and values rather than just because they like to play the same games. As a result, the relationships are more stable.

Effects of Shifts. The constant coming and going of companions during the childhood years may be beneficial or detrimental to social adjustments. If a relationship is broken, even temporarily, the child experiences a period of loneliness. Because of his strong desire for companions, he may fall back on anyone who will accept him. This may be a child with interests and values different from his, which he will accept in any event just to guarantee companionship. This may be a step backward in his socialization, especially if he accepts interests and values that do not conform to those of the larger social group.

If he falls back on the companionship of younger children, of parents or other adults, or of pets or imaginary companions, he is likely to be deprived of the socializing influence of peers. This, likewise, will be a step backward in his socialization.

A child's companions provide not only enjoyment but a sense of security. When fluctuations lead to a loss of that anchorage of security, they can be damaging, especially if they lead to permanent breaks with playmates and friends. Such breaks may come from a severe *quarrel,* a radical *change in interests and values,* and *pressures* from parents and peers to drop a playmate or friend because of his racial, religious, or socioeconomic status.

On the positive size, the effect of fluctuations in children's companions may be to promote socialization. When a child realizes that his playmates or friends will break off their relationships with him if he treats them in an antisocial way or if his behavior falls short of their values, it provides him with a strong motivation to conform to social expectations. It also encourages him to put group interests and activities first, and, thus, to become social rather than egocentric.

A child may learn by trial and error to meet the problems that changing companionships give rise to. He may also learn through guidance or by imitation of those whose playmates and friends fluctuate less than his. Of these methods, learning through guidance is far superior.

Social Acceptance

Companionship is a two-way experience. To have playmates or friends, the child must not only want the companionship of others, but he must also be accepted by those whose companionship he craves. Social acceptance is thus crucial in the socialization of the child.

Meaning of Social Acceptance. In everyday speech, it is usual to refer to a child who achieves social acceptance as "popular." To the sociologist and psychologist, there is a subtle distinction between social acceptance and popularity. *Social acceptance* means being chosen as a companion for an activity in a group of which one is a member (84). It is an index of the success with which a child has taken his place in the social group and the extent to which the other group members like to work or play with him.

Popularity, on the other hand, means the general admiration in which a person is held even by those who do not associate with him. A popular child, for example, may have few playmates or friends but many admirers. He is liked because he exhibits qualities other children admire even though they may not envy him for them. Furthermore, since many of his peers admire him, he is in line for selection for leadership roles, especially if his popularity is based on respect from the group.

An active member of a group is not necessarily popular or accepted. Sometimes a child who participates in many school activities and pushes himself into a dozen different groups is thoroughly disliked by his classmates. There is no direct relationship between the child's desire for social contacts and his social acceptance. Furthermore, there is no indication that any child is completely lacking in the desire to relate to his peers. Some children, however, prefer close, personal contacts with others; they are sociable, companionable, or chummy. Others prefer to keep their distance and are considered aloof.

Conditions Affecting Acceptance. Whether a child will be accepted in a given group depends not only upon the child himself but also upon the *tastes* and *interests* of the group. As Barclay has commented, in discussing the problem of a child who craves social acceptance but enjoys little, "Sometimes such a youngster is simply the victim of the peculiar chemistry of a particular group that passes adult understanding. Sometimes the qualities in him that those in his immediate circle resent would be major assets in another setting." Children's friendships fluctuate so markedly that, even as childhood comes to a close, "today's outcast may be tomorrow's leader" (8).

Within a group, not all children agree either upon those whom they will accept or reject or upon the degree to which they will accept or reject them. There is generally more agreement on those they dislike than on those they like. This means that *unpopular* children are more or less universally disliked by their age-mates, though they are disliked for different reasons and in different degrees. Furthermore, children tend to dislike many of their age-mates and to like only a few.

When there is high agreement among children regarding likes or dislikes for certain age-mates, the group tends to split into cliques, with little of the "stick-together" quality that makes for group loyalty (82). For the social climate or morale of a school class to be good, the majority of the children must enjoy the acceptance of their classmates.

If social acceptance is viewed as a straight line, along which different degrees of acceptance are pinpointed, the category of star will lie at one end of the line and that of social isolate will lie at the other. Few children fall in either of these extreme categories. Instead, most fall between the two extremes, enjoying varying degrees of social acceptance. The categories of social acceptance are defined and explained in Box 11–5 and illustrated in Figure 11–2.

Awareness of Acceptance. Ability to perceive one's status in the group—*socioempathic ability*—is essential to good social adjustments because it determines how one will behave in a social situation. A child who does not perceive his lack of social acceptance will behave as if he were liked. This is apt to increase his lack of acceptance because it will make other children think he is pushy. On the other hand, a child who perceives correctly that he is well-accepted will have self-confidence, which will be reflected in good social adjustments. A child who is unsure of his status will try to play safe and will create the impression that he is vacillating or suffering from feelings of personal inadequacy. The more accurately a child can determine what his status is, the better he will know how to behave.

Box 11-5

CATEGORIES OF SOCIAL ACCEPTANCE

Star

Almost everyone in the group claims the star as an intimate friend, even though he does not reciprocate many of these friendship choices. Everyone admires him because of some outstanding quality. Very few children fall in this category.

Accepted

The accepted child is liked by many members of the group. His status is less secure than that of the star, and he can lose it if he *persistently* does or says things to antagonize members of the group.

Isolate

The isolate has no friends among his peers. Very few children fall in this category. There are two kinds of isolates: The *voluntary* isolate withdraws from the group because of lack of interest in group members or their activities; the *involuntary* isolate is rejected by the group even though he would like to be identified with it. The "subjective" involuntary isolate may *think* he is unwanted and isolate himself from the group. The "objective" involuntary isolate is actually rejected by the group.

Fringer

The fringer is a child who is on the borderline of acceptance. Like the climber, he is in a precarious position because he may lose what acceptance he has by doing or saying something that would turn the group against him.

Climber

The climber has gained acceptance in one group but wants to gain acceptance in a socially more favored group. His position is precarious because he can easily lose his acceptance in the original group and fail to gain acceptance in the new one if he does or says things that antagonize members of either group.

Neglectee

The neglectee is neither liked nor disliked. He is neglected because he is shy, withdrawn, and nondescript. He has so little to offer that members of the group overlook him.

Up to the age of 4 or 5 years, most children are unaware of how others feel about them. Gradually, their awareness grows as their social horizons broaden. Even before they enter school, they are able to verbalize this awareness in such comments as "He doesn't like me" or "No one wants to play with me." Gradually, the child recognizes *levels of preference;* he perceives that some children are better liked than others and that some people like him, some dislike him, and some ignore him.

Variations in Awareness. When sociempathic ability normally improves with age, marked variations exist at every age level (9, 23, 26, 37). Also, the ability to perceive one's own status in the group generally develops more slowly than the ability to perceive the status of others. This is to be expected, because one can be more objective about matters which affect others than about those which affect oneself.

The correlation between *intelligence* and sociempathic ability is very close (6, 90). *Sex differences* are also apparent in early childhood, with girls being superior to boys in this ability. Among older children, the gap between boys and girls narrows (23).

The more *anxious* a child is to be accepted, the more aware he is of how others feel about him and the more accurate he is in judging his acceptance (111). The child who is *psychologically immature,* owing to parental overprotection and authoritarian child-training, tends to be less accurate than his peers (26).

Finally, accuracy of perception of social acceptance varies according to how *popular* the child is. The popular child has close contacts with his peers and, as a result, is quite aware of how others feel about him (34, 51, 110). The very unpopular child tends to underestimate his unpopularity, mainly because his lack of social acceptance has deprived him of opportunities to gain social insight (45, 76). The ability to recognize *indifferent attitudes* is generally poorer than the ability to recognize acceptance or rejection.

In spite of these variations, most children are well aware of how others feel about them by the time they reach the fifth grade (46, 103).

Sources of Awareness. The child's awareness of his own social acceptance comes from many sources. *First,* the tone of a person's voice and his facial expression tell the child how that person feels about him. Even before he can comprehend words, the young child can use these cues to determine how well accepted he is.

Second, from the treatment he receives from others, the child gets a good clue to their opinion of him. If they fight with him, grab his toys, and refuse to allow him to play with them, for example, he can be fairly sure that they do not like him, especially if they do not treat other children this way.

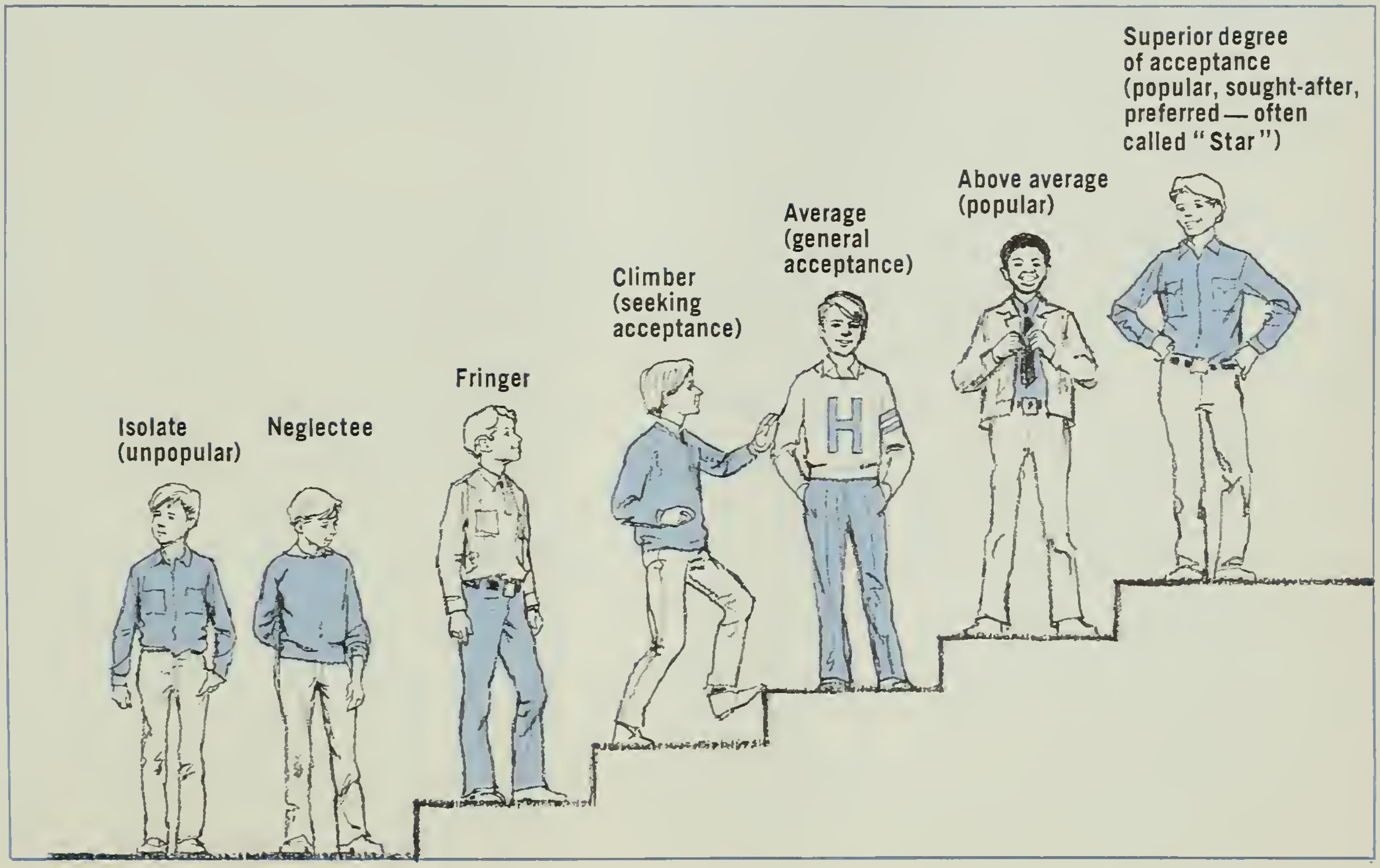
Third, if others are willing to do what he wants them to do, or if they voluntarily imitate his behavior, speech, or clothes, the child can be sure that he is liked.

Fourth, if he has a number of playmates or friends, the child knows that he is better accepted than the child who has only a few.

Fifth, from what others say to or about him, the child can easily tell how they feel about him. If he is constantly accused of blowing his top, griping about everything, or being a poor sport, he should know that the peer group does not accept him.

Sixth, what others call the child is one of the most objective and most accurate clues to his level of acceptance. If they call him by his given name, this suggests that he may not be on intimate terms with them. If they call him by an affectionate nickname, this suggests a close relationship. If the nickname is derogatory, such as "Stink-pot" or "Fatso," this

Figure 11–2. Varying degrees of a child's social acceptance.


Superior degree of acceptance (popular, sought-after, preferred — often called "Star")
Above average (popular)
Average (general acceptance)
Climber (seeking acceptance)
Fringer
Isolate (unpopular)
Neglectee
H

means lack of social acceptance. Similarly, if he is called a "pest," a "nut," or a "big show-off," he knows that he is not well accepted.

Seventh, the category in which the child is grouped by his peers is a good indication of his acceptance or rejection. Levels of acceptance are designated by such names as "wheels" (the top crowd or the ones who run everything), "brains" (those who have little interest in anything but studies), "mice" (the quiet ones who are inoffensive and ineffectual), "drips" (would-be wheels who make others uncomfortable), and "dopes" (would-be brains who arouse antagonism).

Traits Leading to Acceptance and Rejection

There is no such thing as a "popular" or "unpopular" personality pattern—a pattern that invariably leads to social acceptance or rejection. Even the most highly accepted child has some traits that are disliked. The child who is not accepted, on the other hand, may have some traits that are liked. In the accepted child, the disliked traits are compensated for by socially approved traits; in the rejected or neglected child, the desirable traits are overshadowed by the undesirable ones. No child needs to be a paragon of perfection to be accepted. Social acceptance comes from others' reactions to the child's *total personality* rather than to specific traits; thus, his dominant traits will determine whether he will be accepted or rejected. That certain traits contribute to social acceptance does not mean that the more developed those traits are, the greater the child's acceptance. Having *any trait in excess* is likely to lead to poor acceptance, even when the trait per se is a highly admired one. For example, a child has a better chance of social acceptance if he is generous rather than stingy, but if he is overgenerous, handing out gifts right and left, he is likely to give the impression that he is trying to "buy" acceptance.

ACCEPTANCE SYNDROMES

Two personality syndromes—or constellations of traits—are found among children who are well accepted. The *success-oriented* acceptance syndrome is characteristic of those who want to achieve status and advancement. The children participate freely in group activities and always contribute their share or more to the group's success. As a rule, such children are highly accepted. The *goodness-oriented* acceptance syndrome is characteristic of children who put high value on friendship traits, such as love, sympathy, and faith in others. They are less aggressive in group activities and expend less energy trying to attract and win the admiration of the group.

Both syndromes contain socially admired traits. They differ in the *quantity* of outgoing energy the child expends, and in the *direction* in which it is expended. A child who talks, for example, is more likely to win social acceptance than one who does not. But if he constantly turns the conversation in the direction of himself, he will be considered stuck-up, conceited, and boastful.

Traits in Acceptance Syndromes. Studies of children characterized by either the success-oriented or the goodness-oriented acceptance syndrome reveal that practically all well-accepted children have certain traits. Almost universally, they are friendly and cooperative. They adjust without making a disturbance, comply with requests, accept gracefully what happens, and have good relationships with adults as well as children. They are kind to others, share what they have, are willing to take turns in any game the group plays, and show impartiality toward other members of the group. They assume responsibilities, participate in and enjoy social activities, feel secure in their status, and compare themselves favorably with their peers.

The well-accepted child is primarily group-centered rather than ego-centered; he thinks first of others, building up their egos instead of tearing them down to inflate his own. He also flatters others by focusing his comments on their good qualities instead of criticizing their undesirable ones. The child who is successful in games or in academic work tends to be highly accepted because being associated with him inflates the egos of the less successful.

Instead of being slavishly conventional, the well-accepted child is original and yet conforms to the broad pattern of the group, observing its rules, regulations, and mores. He is flexible in the sense that he can readily adapt his way of doing things to conform to social expectations. He is mature emotionally, intellectually, and socially. He shows his social maturity by accepting people as they are—by not criticizing them or trying to change them to suit his own whims—and by social insight, which enables him to size up and adjust quickly to different people in different social situations. His emotional maturity is apparent in well-controlled, even-tempered behavior, free from anxiety, temper outbursts, or displays of jealousy. He is intelligent and alert, but not so intelligent that he is a misfit in the group. He is usually a good student, not so much because of greater intelligence but because he is conscientious in his studies (32, 61, 68, 69).

Variations in Acceptance Traits. Variations in the traits found in well-accepted children are fairly predictable. They are due in large measure to differences in age, socioeconomic status, and sex.

Age. The traits regarded as desirable by members of the peer group vary with age. Consequently, the better-accepted child possesses traits which his peers regard as desirable at *that age.* For example, as the child approaches adolescence, loyalty to the small group, or gang, becomes less important to social acceptance than being able to adjust successfully to complex social situations that involve the larger group (79).

Socioeconomic Status. Acceptance values differ according to the socioeconomic status of the individuals who dominate the group. Boys of the lower socioeconomic levels, it has been reported, are more admired by their peers if they do not conform too closely to adult standards of behavior, while those of the upper socioeconomic classes are admired if they do (84, 101).

Sex. Sex differences in traits that lead to social acceptance exist at every age in childhood. Boys admire "real boys"—those who are adventuresome, assertive, and competitive in sports. Girls admire other girls who are on the quiet side, reserved, and well-mannered—the "lady type"—rather than the "tomboy type" (101, 107).

ALIENATION SYNDROMES

There are three alienation syndromes, or constellations of traits leading to rejection or neglect. These are explained in Box 11-6.

A child's acceptance by a given group depends partly upon his own qualities and partly upon the group. If a child differs from the group members in appearance, personality, interests, and so on, he is likely to be regarded as different and therefore not acceptable. In a group whose members' interests and abilities are more nearly like his, his chances of social acceptance will be greater.

Traits in Alienation Syndromes. *Every* child who lacks social acceptance has an ingrown, self-bound, and self-centered personality pattern. In the preschool years, the child who is not fully accepted by his peers attacks vigorously, strikes others, and pushes or pulls. He tries to escape responsibility by depending on an adult or running away; he dawdles over his tasks, refuses to comply with requests of others, and fails to conform to the routine of the home or nursery school (63, 75, 101).

As he grows older, the child who is rejected or neglected not only antagonizes his peers by his behavior, but also tries to spoil their fun. He suffers from feelings of inferiority and lacks any sense of belonging. He is more likely to have personality disturbances than the accepted child. Frequently, he feels so frustrated that he becomes aggressively antagonistic to

Box 11-6

ALIENATION SYNDROMES

Recessive Syndrome

The recessive syndrome is characterized by listlessness, quietness, reserve, social disinterest, and a tendency to withdraw from social activities. Such children are rarely troublesome at home or in school. Peers may not dislike them, but generally say, "They are not my friends." They are usually overlooked or rejected because they do not fit into the activities of the group.

Socially Uninterested Syndrome

Children typified by the socially uninterested syndrome may have most of the characteristics found in the recessive syndrome plus a cluster of traits that cause them to be self-bound and selfish. Such children are neglected rather than rejected.

Socially Ineffective Syndrome

The socially ineffective syndrome is descriptive of children who turn their energies into channels that make other children dislike them. They try to win attention and acceptance by annoying, aggressive behavior or by dawdling, doing things their own way, failing to carry out assigned tasks, and being silly. They often complain and bid for sympathy and help from adults. They pick fights with others, stir up trouble, tattle, and make sarcastic comments. Because of their antisocial behavior, they are more likely to be rejected than neglected.

adults in authority or to other children who assume leadership roles. No matter how hard he tries, he invariably feels that he has failed. Such unfavorable self-concepts lead to poor adjustments and unsatisfactory interpersonal relationships. In addition, they undermine the child's self-confidence and self-respect (6, 47, 65).

Factors Influencing Level of Social Acceptance

Studies reveal that certain factors contribute to social acceptance while others militate against it. A brief survey will show what role these factors play.

First Impression. The first impression the child makes on others goes a long way toward determining their attitudes toward him and their willingness to accept him as a playmate or friend. If his shyness creates the impression that he is uninterested in social activities, for example, he is likely to be neglected. The first impression made by a newcomer may have long-lasting effects. If he impresses the group members favorably, they will accept him; if he impresses them unfavorably, his chances of acceptance are slim (4, 34, 67).

Looks. Appearance is a greater determinant of acceptance for a newcomer than for a child who is already established. The best-accepted child at any age is in complete accord with the group norms in dress, grooming, and manners (33).

Physical Condition. Well-accepted children are generally vigorously healthy. Children whose health is poor are likely to be socially maladjusted. Physically handicapped children are usually either withdrawn or overactive, either of which militates against social acceptance. Since speech is so important in social interactions as children grow older, those with speech handicaps often avoid social situations and develop the typical personality pattern of the recessive alienation syndrome.

Intelligence. Bright children are better liked than those who are less bright. Very bright children, however, often tend to be inconsiderate of the rights of others or so indifferent to them that they make no real attempt to adjust. The bright are more popular in schools where there are many bright children than in those where the bright child is rare and thus different (41, 64). Dull children are not generally well accepted. They are not very good companions, and they usually feel inferior and inadequate. These feelings, combined with their slowness in learning, make them liabilities rather than assets in group play. They seem immature to their peers, and this adds to their lack of acceptance (41, 60).

Academic Achievement. Children who are academically competent, especially those who read well, are more popular than those whose academic work falls below par. An exception is the very bright child who does so well academically that he gains the reputation of being a "brain" or a "curve-raiser." Poor academic work, on the other hand, due to either low intelligence or poor study habits, adversely affects social acceptance (91).

Social Insight. The ability to make good social adjustments is greatly influenced by how accurately a person can size up a social situation and perceive how he fits into it. Therefore, the child whose social insight is well developed will make better social adjustments than the one whose social insight is below expectations for his age (6, 37, 51).

Sex. Girls, as a group, enjoy greater social acceptance than boys, especially among older children. Boys, as a rule, are regarded as socially immature because, in their zeal to show their masculinity, they are often aggressive and impulsive—patterns of behavior that not only antagonize others but also spoil their fun (72, 97, 101, 107).

Proximity to Group. The more contacts a child has with other children, the greater his chances to form friendships and become an accepted member of the group. If his personality pattern is such that others dislike him, however, close proximity can just as readily lead to social rejection (24, 41).

Family Relationships. The child who learns how to get along with others at home usually carries this pattern of adjustment into his relationships with people outside the home. Child-training practices that are strict and authoritarian, that encourage dependence, or that tend to make the child family-oriented when his peers have become group-oriented will in general foster poor social adjustment and lack of acceptance for the child (24, 26).

Children who are emotionally dependent on their parents for comfort, affection, and support make poorer social adjustments than children who depend on parents for help—"instrumental dependency." In fact, instrumental dependency has been found to have no relationship to social acceptance. Overprotective parents who set up blocks against the child's participation in activities with his peers are likely to deprive him of the social learning necessary for social acceptance (20, 75, 81).

Children who have warm, friendly feelings about their families, who enjoy participating in activities with different family members, and who are encouraged by their families to participate in social activities outside the home make the best social adjustments with the peer group (33). The relationships between social acceptance outside the home and parental satisfaction with children are shown in Figure 11–3.

Family Size. Only children, if they come from a superior socioeconomic group, may make good social adjustments, but generally they are less accepted than children with siblings. The explanation given for the acceptance of children from large families is that they have learned to make social adjustments in the home and have developed a pattern of behavior which helps them to gain acceptance outside. On the other hand, children from small families are likely to be brought up under more democratic child-training methods, and this helps to develop qualities that contribute to good social adjustment and to success in leadership roles (82, 93).

Socioeconomic Status. It has been reported that the majority of well-accepted children come from homes that provide a superior cultural, social, and economic environment. By contrast, children from disadvantaged homes, especially if they are members of minority groups, are more often neglected or rejected by their peers (4, 95, 119).

This does not mean that a child from a low socioeconomic group will *always* lack social acceptance in his school class. He *can* enjoy high peer acceptance, but only when he assumes as his own the values and behavior patterns of his higher-status classmates. In discussing the reasons why lower-class children frequently lack social acceptance, Mussen et al. (83) have pointed out:

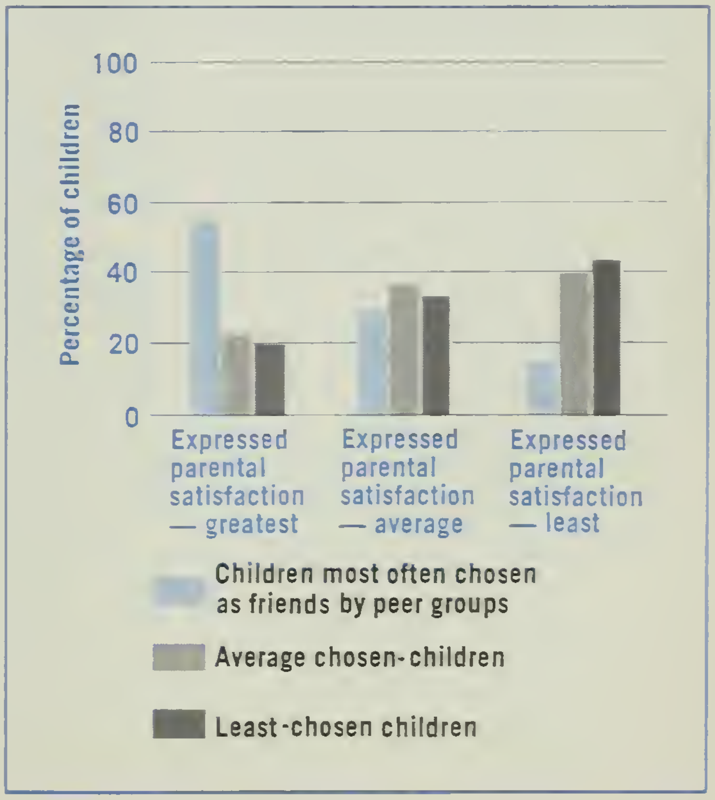
> *Economic factors may partially account for the relatively poor social standing of lower-class children. Poverty may mean poor health, poor clothes, and little participation in social activity. Any of these factors may reduce the child's opportunities for establishing stable peer relationships, and may thus handicap him in learning good social techniques. Moreover, the lower-class child's awareness of his lack of social know-how may produce feelings of inferiority and inadequacy and hence withdrawal from social interactions.*

Group Expectations. A child who shows social maturity by "acting his age" and conforming to the group's expectations in interests and values is more acceptable than the child who acts babyish or fails to conform. Similar interests and values lead to similar ways of expressing and receiving affection and to favorable feelings about others. They lessen the social distance between the child and others, thus making friendships possible (90, 107, 110).

Degree of Differentness. When a child is different from his age-mates, because of his religion, race, or socioeconomic status, he tends to interpret this to mean that he is "inferior." The child with foreign-born parents whose home reflects the culture of his parents' native country feels different, and this may lead to feelings of inadequacy which are reflected in poor social adjustments (4, 20).

Halo. While a child's reputation and status in the group are determined partly by his actual behavior, they are highly influenced by the halo that surrounds him. A *psychological halo* is the picture others carry in their mind of a person and the group with which he is identified. It comes from his behavior and from the people he associates with. As such, it is an extension of the person's reputation which provides others with a basis for making judgments about him. If two children get into a fight, for example, the child who is

Figure 11–3. Relations between children's social acceptance and parental satisfactions with the child. (Adapted from D. Elkins. Some factors related to the choice-status of ninety eighth-grade children in a school society. Genet. Psychol. Monogr., *1958*, **58**, *207–272. Used by permission.*



known as a good sport will be judged far more favorably than the child who is known as a crybaby or bad sport. Consequently, a favorable reputation contributes to social acceptance just as an unfavorable reputation detracts from it.

Persistence of Social Acceptance

In general, persistence in sociometric status begins at the preschool level; children consistently choose the same friends day after day. From then on, less and less shifting from one group to another occurs, though social acceptance varies somewhat with the activity engaged in.

Even when there is a large turnover in the class—as the population changes or as children go from elementary to junior high school—social status within the group remains constant. Social-acceptance scores are almost as constant as intelligence- and achievement-test scores. The child's acceptance score in one group, therefore, is a reliably accurate index of what his acceptance score in any similar group will be (25, 29, 38, 68).

Most changes in social acceptance occur in the middle of the group of socially accepted children—those who are already partially accepted. It is highly unusual for those who are stars to fall from grace or for those who are quiet, withdrawn, and neglected to gain wholehearted acceptance. Those who are rejected because they are disliked tend to be more disliked the more often they come in contact with others.

Reasons for Persistence. The persistence of the child's social acceptance standing can be explained in a number of ways. Five are especially worth noting.

First, the personality characteristics that lead to acceptance, rejection, or neglect tend to remain stable or to intensify as the child grows older. Only when his values regarding what he likes or dislikes in companions change will he be likely to change his acceptance status.

Second, the fundamental values, such as honesty, good sportsmanship, generosity, and courage, by which people judge the child remain stable. If his behavior does not conform to these values at one age, he is unlikely to gain acceptance at a later age unless he acquires characteristics that conform more closely to socially accepted values.

Third, within a group, a child acquires a reputation, and even if he changes, his reputation generally does not. Each year, he discovers that his peers give more attention to reputation in selecting their playmates and friends than they did when he was younger.

Fourth, the more contacts the child has with group members and the closer these contacts are, the more likely he is to retain a stable status in the group.

Fifth, a favorable background in terms of family socioeconomic status contributes to stability of social acceptance because it helps the child to acquire patterns of behavior and values that will continue to win social approval as he grows older.

Importance of Persistence. In commenting on the stability of sociometric status during childhood, Jersild (57) has said:

> *When we consider the forces that, in a sense, render acceptance or rejection a self-perpetuating condition, it appears that there is a kind of fatalism in a child's life as a member of his peer group. The child's fortunes (or misfortunes) with his age-mates often seem to follow the rule that to him that hath shall be given and from him that hath not shall be taken away even that which he has. We might ask, is the wheel of fate, after its first few rounds, destined to move in the same course, to high ground for some and into a deeper rut of misfortune for others? . . . We might take the view that when a child leaves the confines of the home and is thrown upon the mercies of his peers and teachers his fate is already pretty well determined by the combined forces of his heredity and the kind of upbringing he has received.*

It must be recognized that this persistence does not necessarily guarantee that the child is well adjusted or that his social development is progressing in a manner that will ensure wholesome adjustments in adult life. If the child is accepted by his peers because they admire and respect him, well and good. If, on the other hand, he is accepted because he is willing to play a role imposed upon him by the group, even if that role is contrary to his own values and standards of behavior, then the price of acceptance is too high. The temporary satisfaction he derives from this acceptance will be outweighed by the permanent damage it may do to his personality and moral values.

Importance of Social Acceptance

The kind of personal and social adjustment the child makes is greatly influenced by the extent to which his peers find him acceptable. Therefore the impact of peer acceptance or rejection is great. It is more pronounced in some areas of development than others. Box 11–7 lists the chief effects of social acceptance on personal and social adjustment.

In a culture where high value is placed on social acceptance and where parents, teachers, peers, and others use acceptance as an index of social success, the child comes to evaluate himself in these terms. He measures his success or failure by the number of friends he has and by the security of his status in the group. As a result, many a child who buries himself in a group and loses his identity as an individual does so because this is an escape from a feeling of worthlessness. He may get little real satisfaction from being a group member or from engaging in group activities.

Another aspect of this problem is of even greater significance. It affects not only the individual but the entire social group. Since most children in the society lack wholehearted social acceptance and since the number of poorly accepted children increases with age, many more children are psychologically damaged and make poor social adjustments than is healthy for the social group. Children who are constantly confronted with the high cultural value placed on social acceptance cannot fail to be psychologically damaged when they realize that their level of acceptance is interpreted as failure. Barclay (8) has made the following constructive suggestions for coping with this problem:

> *Not every child can be a social lion. "Being liked by all" is neither a realistic goal nor an especially constructive one. Most children are liked by some, disliked by some others, and of merely neutral interest to the great majority. Being actively disliked, however, can be painful and at times destructive. Children in such a spot should be spared harsh criticism and exhortations and helped instead to feel better about themselves, to see how their assets can be put to use and their liabilities corrected in the interest of achieving the kind of companionship for a happier, livelier life.*

Improving Social Acceptance

Every possible effort should be made to improve the child's social acceptance before the group gets into the habit of neglecting or rejecting him and before he gets into the habit of withdrawing or using undesirable means of trying to win acceptance. While some boys and girls gain greater acceptance as they grow older and as the values of the group change, it is too great a risk to sit back and hope that this will happen to *every* child.

Improving social acceptance is difficult at any age. The older the person and the longer he has been neglected or rejected, the harder the task becomes. On the other hand, if poor social adjustments are recognized early and if remedial steps are taken to correct them, the chances of some success will be greatly increased.

Aids to Improving Social Acceptance. Difficult as the task of improving social acceptance may be, studies

Box 11–7

EFFECTS OF SOCIAL ACCEPTANCE AND REJECTION

The Child Who Is Well Accepted	*The Child Who Is Poorly Accepted*
▪ Is happy and secure	▪ Is unhappy and insecure
▪ Develops a favorable self-concept because others approve of him	▪ Develops an unfavorable self-concept based on what he believes others think of him
▪ Has opportunities to learn socially acceptable patterns of behavior and social skills which facilitate his poise in social situations	▪ Often tries to force himself into the group and this increases group rejection of him and reduces his opportunities to learn social skills
▪ Is mentally free to turn his attention outward and to become interested in people and things outside himself	▪ Lives in a state of uncertainty about social reactions toward him and this makes him anxious, timid, and hypersensitive
▪ Conforms to group expectations and does not flout social traditions	▪ Often slavishly conforms in the hope of increasing his social acceptance

show that certain techniques bring reasonably satisfactory results. These are discussed below. If the child is to learn to behave in such a way that others will accept him, however, he needs guidance. He must be shown how to behave and how to replace socially undesirable behavior patterns with more acceptable ones. In addition, he must be motivated to want to improve his behavior.

Opportunities to Play with Other Children. If children who are shy and withdrawn are given opportunities, under guidance, to work and play with other children in group projects, and if leadership roles are rotated, they learn to cooperate and to have confidence in their ability to make a contribution to the group.

Acquisition of Play Skills. Since most social activities in childhood are centered around play, the child who lacks the skills needed to keep pace with the activities of his peers can be given help in acquiring these skills.

Acquisition of Conversational Skills. As was stressed in Chapter 8, most children's speech is egocentric. When children speak to and about others, they often criticize, boast, or ridicule rather than talking in a way that is ego-inflating to others. With guidance, they can learn to talk about things that interest their peers and in a manner that wins social acceptance.

Group Discussions of Popularity. Schoolroom or play group discussions of what makes children acceptable to their peers and of how lack of acceptance affects children can improve the child's social insight and make him more understanding and tolerant.

Association with Well-accepted Children. Through parent or teacher guidance, a poorly accepted child can usually be brought into a group of children whose good social adjustment leads to group acceptance. From this association, the child can not only learn how to behave in a socially accepted way but he can also become identified, in the minds of his peers, with accepted children, thus acquiring the beginnings of a halo of popularity.

Increased Self-insight. If, through guidance, a child can see himself realistically instead of in the unrealistic way he likes to think of himself, he will be motivated to try to acquire traits that lead to greater social acceptance. He will also understand more fully why he has not been as well accepted as he would like.

Changed Attitudes toward Social Behavior. When a child's attitudes toward social activities and group members are unfavorable, owing to unpleasant early social experiences, parents and teachers can help change his attitudes by providing pleasant social experiences and opportunities to learn social skills.

Elimination of Annoying Behavior. A child may not realize that annoying behavior, such as grabbing, pushing, tattling, or making derogatory comments, leads to social neglect or rejection until it is pointed out to him. Therefore, those who are responsible for the child's development should make him aware of what he is doing or saying to annoy others and help him correct his behavior.

Demonstration of Abilities. Some children, through excessive modesty or circumstances beyond their control, do not let others know about their talents or skills. As a result, they are neglected by their peers. Since it is difficult for a child to show off his abilities without creating the impression that he is boasting, a parent or teacher can focus group attention on him by praising him for his achievements. Whether this will increase the child's acceptance, however, will depend on how the praise is given. If the praise is for the child's *contribution to the group,* it will have a favorable effect on the group's reaction to him. If it is solely for the child's personal glory, it is likely to increase his rejection; his peers will interpret it to mean that he is the parent's or teacher's pet.

Limitations in Improving Social Acceptance. No adult, whether parent or teacher, can *dictate* to children whom they will like or be willing to accept as a member of their play group. This is the prerogative of the group. All the adult can do is provide situations which will enable the group to see the child in a more favorable role. For example, when social cleavages develop in a classroom, they tend to persist. Even by seating children side by side, the teacher cannot force them to be friendly if they do not want to be. As Elkins has stated, it is "easier to adjust the academic requirements to the needs of the youngster than it is to adjust the social needs of the child to the group in which he is a misfit or to attempt to adjust the social responses of the group to such a child" (33).

Because there are limits to what one can do to improve another's social acceptance, the important thing is to help the child gain self-confidence. Then he can make a more satisfactory effort to win acceptance before he becomes resigned to playing the role of an isolate or develops forms of compensation which will militate against later acceptance. This should be done before the group gets so accustomed to thinking of him as a fringer that they overlook any potentialities he may have. Gaining the reputation of being an isolate or a fringer may result in a persistence of that status. Jersild (57) has pointed out:

> *A youngster who, for one reason or another, has received a bad reputation in the elementary grades may still be plagued by it in junior high school, for even though many of the children there are new to him, one first-class gossip from the former grade may be able to stir up doubts and suspicions against him.*

Social Mobility

One of the major obstacles children encounter in achieving social acceptance or in feeling secure about the acceptance they have achieved is social mobility. While it is true that many children come from static homes, the trend is toward greater and greater mobility.

Meaning of Social Mobility. Social mobility is the process of changing one's status in the social structure. With change in status there is inevitably a change in social relationships, and this involves problems of adjustment. Two kinds of social mobility and some of the characteristics of each are described in Box 11-8.

The person in the process of changing his status in the social structure has been given a specific label by sociologists and psychologists—a label which indicates not only the direction of his mobility but also his success in adjusting to the new group. If the person climbs up the social ladder, he is known as a "climber." If he climbs, or falls, down, he is known as a "slider," a "decliner," or a "skidder," depending on how rapid his descent is.

Between the climber and the slider are those who are trying to move upward. They are usually called "strainers" and "clingers." A *strainer* is a person who is only tentatively accepted; as a result, his status gives him little satisfaction and security, and his social adjustments are poor. The clinger is peripheral to the group because he has not completely adopted its approved patterns. While he is not rejected, his status is precarious, and, at any time, should he say or do something the group disapproves of, he may forfeit what status he has (88, 89, 117).

Reasons for Social Mobility. Whether the child will be static or mobile will depend largely upon his family. Some families are content to remain, year after year, in the same neighborhood, the same community, or even the same house. The child is thus not forced to meet the problems mobility gives rise to unless he, himself, wants to move up the social ladder or identify with a different group.

Since World War II, social mobility has become an increasingly serious problem for children as well as for their families. Many parents are anxious to have their children "better themselves," and so they move to neighborhoods or communities where their children will have greater advantages. Children themselves may have a strong drive to identify with a group that is regarded as superior to their present one.

Downward mobility is, likewise, a growing problem for children today. There are two major reasons: *First,* divorce and the breaking up of the home is far more common than in the past, and *second,* with the growth of big business, men are far more likely to lose their jobs than was true when business was on an individual or a smaller-group scale. If the financial stability of the family is threatened, downward mobility is often inevitable.

Box 11-8

SOCIAL MOBILITY

Horizontal Mobility

In horizontal mobility, there is a transition from one group to another on the same level. The move is generally made for personal reasons. The child, for example, moves to a group he finds more congenial just as his parents move to a neighborhood they believe will be more congenial.

Vertical Mobility

In vertical mobility, there is a transition from one social stratum to another. The move may be ascending (upward mobility) or descending (downward). In *upward mobility,* the person tries to improve his status by indentifying with a higher-level social group. He is motivated by a desire for advancement. In *downward mobility,* the person becomes identified with a lower-level social group. The move is usually involuntary. A family misfortune, for example, may force the person to give up his association with a group because he is no longer able to afford the clothes or private schooling approved by the group. As a result, he loses his status in it.

No one—adult or child—likes to skid down the social ladder. It is an ego-deflating experience because it implies failure. Furthermore, the person resents having to associate with people of a lower class; he considers their values, interests, and behavior patterns inferior to those he has been accustomed to. Because downward social mobility means living in a less desirable neighborhood, having a house that is inferior to the old one, and having fewer material possessions, the child will be unhappy about his new status. All this, added to the belief that the new group is "inferior," weakens his motivation to try to identify with it. To make the situation worse, the child is likely to find that his old social group will not accept him since he has changed his status and, with it, his neighborhood, his school, and his ability to have the status symbols they consider important.

Difficulties Children Encounter in Mobility. Of the many difficulties a child must face when he is socially mobile—regardless of what kind of social mobility is involved—two are particularly damaging because the child is intellectually, emotionally, and socially too immature to know how to cope with them. The first is achieving acceptance in the new group and the second is accepting as his own the values and behavior patterns of the group.

Achieving Acceptance. To gain social acceptance in a new group, regardless of the child's age, there are two essentials: making a favorable impression on the group and showing enough aggressiveness to attract the attention of the group members without, at the same time, antagonizing them.

The importance of *making a favorable first impression* was well illustrated in a study of assimilation of newcomers into groups. The study found a high correlation between acceptance on the first day in the classroom and 11 weeks later. Older children tend to be more choosy about the acceptance of newcomers than younger children. The difficulty of gaining acceptance varies, however, according to the nature of group and the *age* of its members (120, 121).

Well-controlled and well-camouflaged *aggressiveness* on the part of the newcomer is necessary to gain entrée into the group. Rarely do established groups take the intiative in making contacts with a new child unless he makes an extraordinarily favorable first impression. Under most conditions, the new child must himself make the contacts by trying to talk with members of the group, by trying to attract their attention, or by observing and imitating their play.

Since aggressiveness is often interpreted as pushiness, a newcomer seldom knows just how much he must do to win the group's attention and acceptance. The only kind of aggressiveness that a socially mobile person can use successfully, without running the risk of social rejection on the ground that he is pushy, is aggression which Davis described as "congenial and disarming" (21). Few children have the social sophistication to know when pushiness replaces "congenial and disarming" aggression.

Conformity to New Standards. The second major difficulty the child encounters in social mobility is learning to conform to new standards of approved attitudes and behavior. When mobility is vertical, the child encounters all the difficulties associated with gaining acceptance in a new group *plus* the necessity of learning to conform to new beliefs, new values, and new behavior patterns. Adjusting to a new group is *never easy,* even when it is composed of children of similar backgrounds, interests, and values.

Upward mobility means improved standards of living and more prestigious social contacts. Parents are thus anxious to help their children make a successful adjustment to the new social group, and they stress the importance of learning approved behavior patterns. Unless they know just what the new standards are, however, it is difficult for them to offer very much guidance. Once a child gains some acceptance, he can observe the approved patterns and values and model his behavior along those lines in the hope that, in time, the group will accept him fully.

Downward mobility has no appeal for the child or for his parents, and so they are not motivated to identify the approved standards of the new group or to conform to them. As a result, the child has little chance of acceptance by the group, and even if he does win acceptance, he gains little satisfaction from associating with children whom he and his parents regard as inferior.

Effects of Social Mobility. Whether social adjustment is judged by objective or subjective standards, the overall affects of mobility are usually unfavorable. A family may improve its standard of living, but the effects on the social adjustment of the child can be damaging. The most common effects and the ones that lead to the greatest unhappiness and insecurity are described below.

Lack of Social Acceptance. Lack of acceptance is difficult for any child. It is especially difficult for one who enjoyed social acceptance in the neighborhood from which he moved. Furthermore, it is hard for him to understand why he is not accepted in his new neighborhood or school. The more popular he was in his former group, the less satisfied he will be to have to form friendships with fringers or social isolates in the new group (35, 102).

A child who has not enjoyed much social acceptance in the old setting may be promised by parents that "things will be different" when the family moves. If they are not different, he will be more dissatisfied.

Effects on Family Relationships. Mobility always puts a strain on family relationships. The strain may be especially severe if the mobility is upward. Studies of upwardly mobile families reveal that the children are constantly driven by their fathers to achieve a higher-status position in their peer groups. The children are closely supervised to prevent behavior that might reflect unfavorably on the family and thus militate against its acceptance by the group with which it wants to be identified. Children are expected to excel in both school and social affairs. As a result of this pressure, the home atmosphere becomes emotionally charged, and family relationships deteriorate (2, 88).

Mobility also tends to weaken intergenerational ties. Families that have risen above their kin, or skidded below them, tend to break off the close ties that give children a feeling of security. Even in horizontal mobility, kinship ties weaken as families move into new communities or new neighborhoods (2, 56). Figure 11–4 shows how social mobility affects kinship

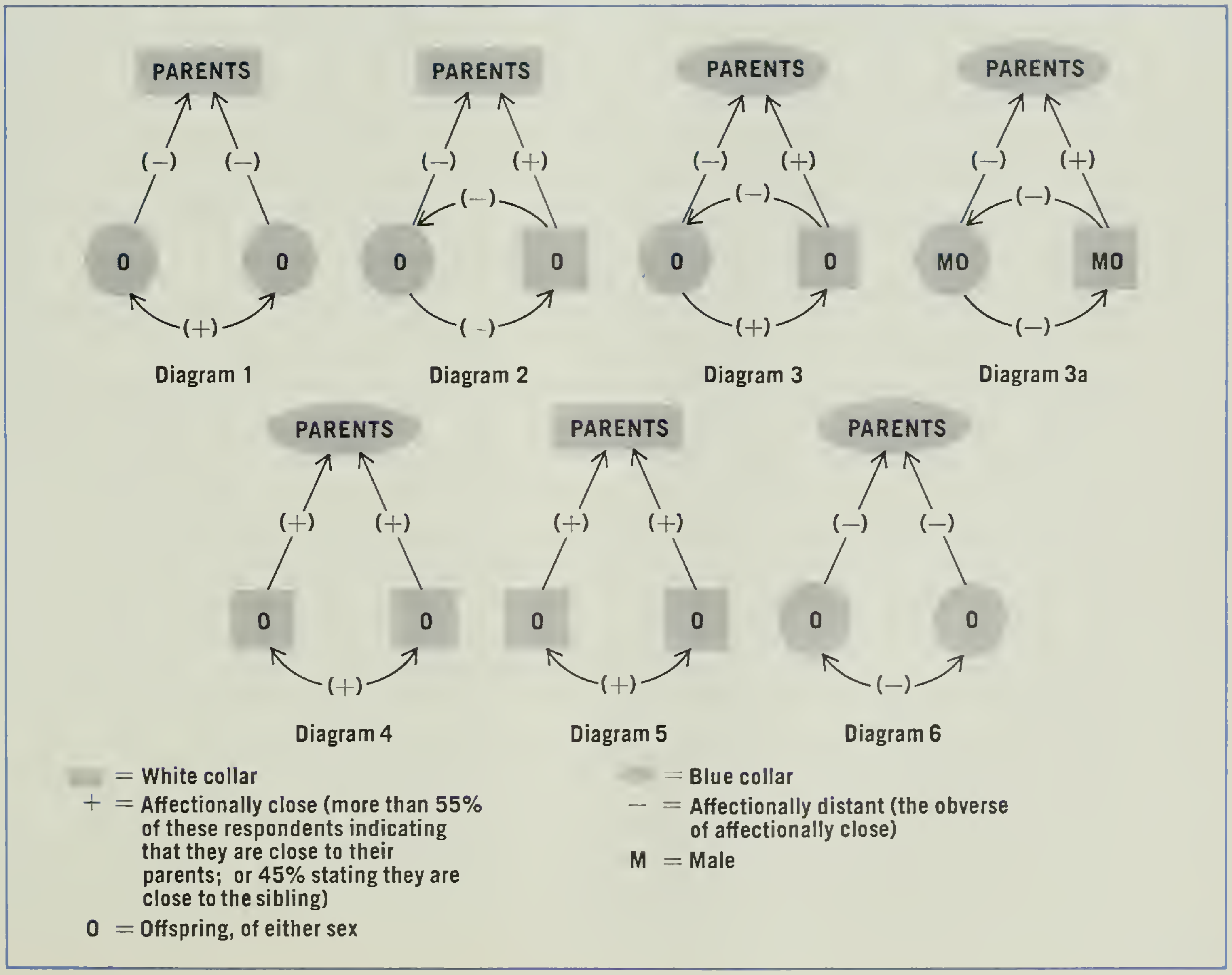


Figure 11–4. How social mobility affects kinship ties. (Adapted from B. N. Adams, Occupational position, mobility and the kin of orientation, Amer. sociol. Rev., *1967,* **32**, *364–377. Used by permission.)*

PARENTS
(−)
(+)
0
MO
Diagram 1
Diagram 2
Diagram 3
Diagram 3a
Diagram 4
Diagram 5
Diagram 6
■ = White collar
+ = Affectionately close (more than 55% of these respondents indicating that they are close to their parents; or 45% stating they are close to the sibling)
0 = Offspring, of either sex
● = Blue collar
− = Affectionately distant (the obverse of affectionately close)
M = Male

ties. While the relationships between socially mobile adults and their parents and siblings are, on the whole, fairly good, they are distant. This means that children have fewer close kinship ties with grandparents, uncles, aunts, and cousins.

Effects on Schoolwork. Since social mobility is usually accompanied by geographic mobility, the child almost always must shift to a new school. He often finds that there are gaps in his schoolwork and, as a result, may have to go back a grade in the new school. If he is not as well prepared as his new classmates, he may do work far below his former standards. This is a source of concern for him and is likely to lead to friction in the home, especially when parents put a high value on academic achievement (56, 88).

Confusion about Social Expectations. Every group has its own values and social expectations, and a child may be confused when he discovers that behavior judged acceptable in the old group is frowned upon in the new group. Until he learns the cultural values of his new group, he not only will be deprived of social acceptance but may even be the object of ridicule and scorn (88, 89).

Lack of a Sense of Identity. The most common and most serious source of dissatisfaction the socially mobile child experiences comes from lack of a sense of identity. He feels that he does not belong anywhere, either in the old group with which he no longer has contact or in the new group which has not accepted him as a recognized member (99, 102).

Lack of identity has three serious consequences for the mobile child. The *first* is lack of opportunity to learn what the group expects so that he can develop values and patterns of behavior that will lead to social acceptance. The child who is *in* a group but not *of* the group has no real way of knowing what group expectations are.

The *second* is a feeling of insecurity. Lacking firm ties with either the old or the new group, the child feels insecure with *everyone.*

The *third* is the feeling of social isolation—of being friendless. Because social mobility involves a severance of emotional ties with former friends without compensatory ties with new friends, the child lacks what every child craves—playmates who want to play with him and who accept him as a member of the group.

Overconformity. To compensate for their feelings of insecurity, most socially mobile children tend to overconform in appearance, speech, beliefs, and actions. They are afraid that any differences they have will be considered a sign of social inadequacy. Being unsure of their status, they become status-conscious and want every possible status symbol—money to spend, a big home, and as many cars as the other children's families have. Since parents are anxious to have their children accepted by the "right children," they are usually only too willing to supply the necessary status symbols, even if it means going in debt (88).

Hostility toward Inferiors. Closely related to status consciousness—and motivated by the need to compensate for feelings of insecurity—is the tendency to be hostile toward all who are considered socially inferior, even family members. Much of the prejudice children have against minority-group members comes from feelings of insecurity, one common cause of which is social mobility (88, 89).

Embarrassment. The insecurity of the socially mobile child makes him self-conscious and embarrassed in social situations. Age for age, he usually shows less poise than age-mates who have been more static. This creates the impression that he is immature for his age.

For the downwardly mobile child, embarrassment is intensified by feelings of shame. He realizes that he has lost status in the eyes of others because he has gone down on the social ladder rather than remaining static or climbing upward. The further his social descent, the more embarrassed and ashamed he is—reactions that play havoc with his personal and social adjustments.

In conclusion, it should be apparent that the damaging effects of social mobility on children far outweigh the advantages. Bossard and Boll summed the situation up correctly when they said that "mobility has its advantages but we wouldn't wish them on anyone" (14).

Leaders and Followers

No matter what their ages, children in any group seldom have a relationship of complete equality. One child usually stands out as the recognized leader, even when the group is made up of only two or three children. Shakespeare said, "As two men ride of a horse, one must ride behind." So it is with children.

Because of the prestige associated with leadership, every child at some time or other wants to be a leader. He is encouraged in this desire by his parents. Not only do they believe that leadership is a sure indication that their child has made superior social adjustments, but they also derive vicarious pleasure from the child's status. Few children, however, achieve the status of a leader; most are followers.

Whether a child will play the role of a leader or a follower does not depend so much upon the qualities he has as upon the relationship of his attributes to those of the group. *He may be a leader in one group and a follower in another.* As long as he is able to meet the needs of the group, he will be accepted as their leader. When he is no longer able to do so, he will be forced to relinquish his leadership role.

A *leader* is an accepted member of the group who more nearly represents the group's ideal than other group members. The other members are willing to follow him because he has demonstrated his mastery of social relationships, is able to elicit positive reactions toward himself from the group members, and can contribute more than the other members to satisfying the needs of the group as a whole. A leader is not just a person in authority; he is one who can arouse *emotional reactions.* Because of this, he has the ability to get others to act in a certain way (22, 44, 59).

Leaders can be divided, roughly, into two categories. The first is the *authoritarian* leader—one who is a bully and despot and who can lead by power alone. The authoritarian leader may win the respect of the group, but he rarely wins its affection. The second is the *democratic* leader—one who shows great concern for the feelings and interests of the group members. Such a leader leads by making suggestions rather than by giving orders. In contrast to the authoritarian leader, he wins both the respect and the affection of the group members.

Followers, like leaders, are accepted members of the social group with which they are identified; they retain this status as long as they are willing to do what the majority of the group members want to do and as long as they are willing to follow the leader.

Just as there are different kinds of leaders, so are there different kinds of followers. Some follow because following is easier than leading; others lack the qualities to be leaders. Some followers contribute little to the group and are content to go along with the crowd; others carry a heavy load for the leaders and will do the work while the leaders get the credit.

Some followers are constructive members of the group; others are destructive—the "tear-downers," who constantly criticize the leader and his policies. These are usually the children who wanted to be leaders but were not chosen; as a result, they are bitter and vindictive toward those who were chosen.

CHARACTERISTICS OF LEADERS AND FOLLOWERS

The qualities that distinguish leaders from followers differ in *degree* rather than in kind. That is why a child may be a leader in one group and not in another. If a child has athletic skills superior to those of the other group members, for example, he will have a good chance of being their leader. In another group, his skills may be inferior to those of one or more of the group members; consequently, he will have little chance of being selected as the leader.

Many of the characteristics commonly found in both leaders and followers are more highly developed in the followers. They may make the child a potential leader—a potentiality which may or may not be realized, depending on the group he is in and on what other traits needed for leadership he possesses. The very bright child, for example, is less likely to be a leader than the one whose intelligence is high but not so high that it sets him apart from the group. If the very bright child is to be a member of the group, he must often be content to be a follower. Similarly, a child from a very high socioeconomic background is less likely to be a leader than a child whose socioeconomic background is only slightly higher than that of the rest of the group. In the former, there is too much difference between the child and the group for the members to feel comfortable with him. They may feel that his background has given him a false sense of his importance.

Certain differences between leaders and followers in childhood are predictable. While the traits that distinguish leaders also appear in followers, they are, as a rule, less developed in followers. Studies reveal that members of the peer group rate their leaders as having the best ideas, being best at getting others to do things, knowing best how others feel, and being the best looking (19, 86). Box 11–9 lists the characteristics that most clearly distinguish leaders from followers.

DEVELOPMENT OF LEADERSHIP

Tradition holds that some people are born leaders, while others are born followers. As has just been pointed out, however, many children who are followers have the same traits as the leaders, perhaps even in a more highly developed form. The *use* the child makes of his abilities determines whether he will be a leader or follower; this, in turn, is determined largely by the training he has during the early years of life.

Box 11-9

DIFFERENCES BETWEEN LEADERS AND FOLLOWERS

- *Appearance.* The leader is not necessarily better looking than the follower, but he usually makes a better overall appearance because of his clothes and grooming. He is usually larger, and this commands attention and respect.
- *Popularity.* The leader is always popular but a popular child is not always a leader. Some followers are popular because they are fun to be with, while the leader is liked because he has won the group's respect.
- *Security.* The leader has a sense of security, resulting from his realization of the group's attitudes toward him. His security encourages him to be flexible and creative.
- *Conformity to group ideal.* The leader conforms more closely to the group's ideal in appearance, behavior, and attitudes than the follower. This increases the respect and esteem the group has for him.
- *Personal and social adjustment.* The leader makes good personal adjustments because he is self-acceptant and confident that he has something to contribute to others. As he is socially more active than a follower, he develops social insight and learns how to deal democratically and diplomatically with the group members.
- *Maturity.* Because of his age or training, the leader creates the impression that he is more mature than the other group members. He not only controls his emotions better than they, but he takes a realistic approach in everything he does.
- *Motivation.* The leader's motivation is expressed in his willingness to make the sacrifices of time, effort, and personal desires required to play this role. He is willing to accept responsibility for his failures as well as his successes.
- *Extroversion.* The leader is able and willing to express his feelings toward others and to turn his energies to activities that will benefit the group. The larger the group, the more important extroversion is in the leader.

Studies of leadership reveal that it is not an inborn trait but is one which develops over a relatively long period and with considerable effort on the part of the potential leader. The child must learn the skills and habits which contribute to social effectiveness, and he must learn to play the roles essential for a leader.

Influence of Early Experiences. The roots of leadership are found in early childhood experiences. Within a family, some children seem more predisposed to play leadership roles than others. This is not so much a difference in inherent abilities as in the *treatment* the child receives from his parents and what they expect of him. Only children and oldest children are more likely to develop leadership abilities than younger children. The oldest children in a family are given many responsibilities, while only children become mature for their age because of their constant association with their parents (14).

Influence of Child Training. Democratic child training during the early, formative years is far more likely to provide an environment conducive to the development of leadership qualities than strict authoritarian training. Under democratic child training, family relationships are generally good, and the child develops effective patterns of social adjustment in the home. He carries these outside the home and is thus able to make satisfying peer adjustments. The child who makes good peer adjustments has, in turn, many opportunities to learn to be a leader.

Pattern of Leadership Development

The pattern of development of leadership is predictable and is similar for all leaders. Leadership ability shows itself as soon as two children are placed together. The dominant child takes the toys that appeal to him. Should the toy be in the possession of the other child, he will push, pull, kick, and do everything within his power to get it. The leader in *preschool years* is usually superior to other members of the group in size, in intelligence, and generally in age. Because of his superior age and intelligence, he has more suggestions to offer for play, and thus the other children are willing to follow his lead. Sex is an unimportant factor in leadership at this age. Girls often assume the role of leadership over boys as well as over other girls. Likewise, social status, nationality, and physical attractiveness are not so important now as they will be later. Fairness and social responsibility to the group, on the other hand, are important characteristics of the child leader. The child leader shows marked self-confidence.

During the *early childhood* years, the leader tends to be the tyrannical boss of the group. He expects others to follow his wishes and becomes angry or sullen if they rebel. Should his techniques become too tyrannical, he will find himself displaced and another child recognized as the new leader. In contrast to the bully, who tries to lead by brute force, the diplomat leads by artful and indirect suggestions, bargains, or even bribes and threats. The diplomat is generally able to hold a following longer than the bully.

In *late childhood*, the leader represents the group's ideal. Should he fall short of group expectations, and should he display traits his peers dislike, he soon loses prestige and is replaced by another who, at the moment, more closely approximates the group's standards.

As childhood progresses, leaders are needed for different activities—school and class offices, sports, gangs, and community groups, like the Boy Scouts and Girl Scouts. The same child will not necessarily have the leadership qualifications needed for all such groups. Thus there is a tendency among older children to select leaders for *specific group activities*. Without doubt, however, the prestige and experience gained from leading one group activity carry over to other activities and give the child who has been a leader an advantage over another who may be equally suited for leadership but lacks experience.

The *technique of leadership* among older children differs from that which proves successful among younger children. The leader can be authoritarian and despotic only when the group is very large and is unanimous in its admiration and respect for him. For the most part, however, the leader must give the rest of the group some choice; they, in turn, must not only agree to his suggestions but be willing to follow them.

PERSISTENCE OF LEADERSHIP

According to tradition, "Once a leader, always a leader." This is not necessarily true, especially during early childhood. The young child who becomes the leader of his nursery school or kindergarten group will not necessarily be the top executive in an important corporation when he is an adult, nor will he necessarily be a leader in his high school or college days. While leaders may come and go at all ages, leadership tends to become more persistent as childhood progresses.

Factors Encouraging Persistence. A number of factors encourage persistence of leadership. Of these, three are highly significant.

Stability of the Group. It is much easier for a child to be a leader in a stable group than in one whose members come and go and in which new interests and values appear. For boys, at all ages, great prestige is associated with outstanding athletic ability. Consequently, a boy who shows marked athletic promise during the gang age is likely to continue to be a leader throughout adolescence. Athletic participation and honors in high school, in turn, are more predictive of future leadership than nonathletic participation and honors (79, 85).

Adaptability of the Leader. The child who is adaptable can use the skills acquired in handling one group to handle another. As children grow older, however, their needs change. Therefore, the leader will have to change his methods of meeting their needs, or the group members will no longer find him a satisfactory leader. As groups tend to become larger in later childhood, it becomes increasingly important for a child to be adaptable if he wants to continue to be a leader.

Motivation of the Leader. Many children discover that leadership requires more sacrifices than they are willing to make. Furthermore, girls discover that being a leader is regarded as less sex appropriate than being a follower; girls who are leaders are often suspected of being bossy—a characteristic that is not admired in girls. Boys, on the other hand, are regarded as the "natural" leaders. Consequently, greater prestige is associated with leadership among boys than among girls. These social attitudes have a strong influence on the child's motivation.

Factors Militating against Persistence. Just as there are factors encouraging persistence of leadership, so there are some that militate against it. Under three conditions leadership is unlikely to be persistent.

Undemocratic Method of Selecting Leader. When a leader is selected by a teacher, camp counselor, or some other *adult*, the group members usually resent interference in what they consider their own rights. Even though they may have to accept the child who has been appointed, the chances are slim that he will be able to retain his position when the group is allowed to make its own choice *unless* he demonstrates that he is able to fill their needs.

Stopgap Leader. A leader selected to fill a gap created by the withdrawal of a chosen leader will not retain his leadership status or be selected for leadership roles again unless he proves to be a satisfactory leader; he will be regarded merely as a "stopgap" until the right leader can be found.

Failure to Meet Group's Needs. Of all the conditions determining the retention of leadership status, the most important is whether the leader fills the needs of the group to the satisfaction of the majority of its members. A bossy leader, for example, does not fill the needs of the followers for independence and self-expression. Similarly, a leader from the "wrong side of the tracks" will not fill the group's need for a leader who is esteemed and respected by the peer group as a whole, even though he may have done so when the members were younger and when socioeconomic status was not so highly valued as it is later.

LEADERSHIP AND FOLLOWERSHIP: SATISFACTIONS AND DISSATISFACTIONS

For some children, the satisfactions associated with the roles of leader and of follower outweigh the dissatisfactions. For others, the reverse is true. A brief critical analysis will help to show why some children prefer to be followers while others are unhappy unless they are leaders.

Leadership. Judged by *objective* criteria, leadership is regarded as a certain index of good social adjustment. The larger the group and the more often a child is selected for leadership roles, the better adjusted the child is thought to be.

To judge a child's social adjustments fairly, however, one must also take into consideration the *subjective* criteria—how the child feels about being a leader. Most children enjoy the prestige of leadership and are willing to pay the price in terms of extra work and sacrifice of personal desires. They are even willing to give up close, personal friendships in order to be friendly with all who want to be their friends.

As a result of the favorable attitudes of the social group—peers and adults—the child leader develops a characteristic leader personality, often labeled a "dynamic" personality. This personality pattern is characterized by self-confidence, assertiveness, and an aloofness toward others that is manifested in lack of slavish conventionality and lack of close, warm friendships with a few selected members of the peer group.

Frequently, the child develops feelings of personal superiority, though he soon discovers that these feelings must be well guarded or he will acquire the reputation of having a "swelled head"—a reputation that could quickly lead to the loss of his leadership status. His feelings of superiority are likely to come to the fore, however, whenever he has to play the role of follower. He finds it difficult to play this role and often tries to tell the leader how to do things.

Since every child leader has seen leaders come and go, he is aware of the possibility that this can happen to him too. If he hears grumblings of discontent, if his suggestions are challenged, or if there is outright criticism of him as a person or of the way he is playing the leadership role, much of his satisfaction is counteracted by feelings of anxiety and resentment.

Should he be replaced by another leader, his resentment against the group will be greatly increased, and in time he will come to doubt his own leadership ability. Psychological damage is especially likely to occur among children of low socioeconomic backgrounds who find that the leadership roles they once played are later taken over by children of better socioeconomic backgrounds, even though they may not be more competent leaders.

Followership. In the eyes of others, a follower is one who has made poor social adjustments. Every child, sooner or later, becomes aware of this objective judgment. The more emphasis parents and teachers place on "trying to be a leader," the more inadequate and the more resentful the child who is a follower becomes. In time, this results in a personality pattern that will militate against his being *able* to be a leader, even though he should be selected for such a role. If, for example, a child who has never been selected as leader by the peer group is appointed to a leadership role by a teacher, the chances are that he will not play this role to the satisfaction of the group, even though he has the inherent potentials of a leader. His attitude toward his ability lacks the self-confidence needed for leadership, and his resentments make him behave in an antisocial way toward those who are his followers.

This is one of the reasons why adults find it so difficult to develop leadership in children who, according to adult standards, have the potentials of leadership but are not selected by the peer group. Even though the children may like the child and accept him as a member of the peer group, they resent having their prerogative of selecting their leader usurped. This makes them judge the leadership performance of the child more critically than if they had selected him themselves. When they verbalize their criticisms of his leadership and rebel against his suggestions, the child finds the role of leader less satisfying than he had anticipated, and the attitude of the group increases his doubts about his leadership abilities.

As a result of such experiences, a child soon develops a "follower complex"—a firmly established belief that he can be nothing but a follower. This often affects his attitude toward accepting a leadership role later, should one be offered him. Studies of adolescent and adult women, for example, reveal that many of them shy away from semiexecutive or executive roles in business and industry, not because they lack the ability or training, but because they developed "follower complexes" during the years when the leadership roles in their classes were held mainly by boys and when they learned that leadership was not sex appropriate for a girl (88, 89).

How a follower will feel about his role will depend not only on how much he wants to be a leader but also on how he is treated by the leader. If he *wants* to be a leader but is not selected, he will feel more inadequate about his social adjustment than the child who is content to be a follower. He cannot be satisfied with the follower role, however, unless he is satisfied with the way the leader *treats him*. A child may not want to be a leader, but, at the same time, he does not want to be bossed by a leader. If the leader is democratic, the follower is generally content to let someone else do the work and assume the responsibilities while he reaps the benefits. This will not lead to feelings of inadequacy, especially if he is popular and gains satisfaction from group acceptance.

Unquestionably, a child who enjoys his leadership role and who leads to the satisfaction of the group has made superior social adjustments. If the child leader is anxious about his ability to hold the group together or retain his status, the success of his social adjustment as judged by *subjective* criteria is inferior to that of the happy, contented follower.

The child who makes the poorest social adjustment of all is the one who is forced to be a follower when he wants to be the leader. Even if he does not show his resentment openly, it will color his attitudes toward the group and toward his participation in the activities the group enjoys. If, on the other hand, he shows his resentment by being a tearer-downer who tries to persuade other followers to join his rebellion against the leader and who undermines the morale of the group by his hypercritical, negativistic attitude, he will soon discover that the important members of the group resent him. In time, this will lead to his rejection by the group. Thus, judged both objectively and subjectively, his social adjustment is most unsatisfactory.

Highlights of Chapter 11

1. The child's social adjustments are evaluated by four criteria: how his behavior in social situations conforms to group expectations, how successfully he can adjust to various groups, his attitude toward people and social activities, and the degree of satisfaction he derives from social contacts and from the role he plays in social situations.

2. The child's companions fall into three general categories: associates with whom there is no interaction, playmates with whom the child engages in pleasant activities, and friends with whom the contacts are not only in play but also in communication.

3. To contribute to the child's socialization, his companions must have an interest in and affection for him and they must have interests and values similar to his.

4. Fluctuations in companionship during the childhood years, which decrease as children grow older, are due to changes in interests and values, antisocial behavior, lack of social insight, pressures from others, social mobility, and the treatment the child receives from his companions.

5. Degree of social acceptance, commonly referred to as popularity, ranges from that of the star to that of the isolate. Between the two extremes are the accepted, the fringer, the climber, and the neglectee.

6. The acceptance syndromes, which take two forms, —the success-oriented and the goodness-oriented —include a predominance of traits which are generally admired by the child's age group. The alienation syndromes, in their three forms—the recessive, the socially uninterested, and the socially ineffective

—include a predominance of traits which lead to social rejection.

7. The degree of social acceptance a child enjoys is influenced by the first impression he makes on others, his looks, physical condition, intelligence, academic achievement, social insight, sex, proximity to the group, relationships with his family, group expectations, differentness from the group, the size and socioeconomic status of his family, and the halo he has acquired.

8. The degree of social acceptance the child enjoys tends to be persistent because the conditions—personal, familial, and environmental—responsible for his acceptance are largely persistent.

9. Since social acceptance is important to a child as a source of social learning and of social and self-evaluation, attempts have been made to help children improve their social acceptance. These have met with only limited success.

10. Social mobility, which may be either horizontal or vertical, is a serious obstacle to social adjustment and, as such, contributes to poor personal adjustment and unhappiness.

11. Whether the child is a leader or follower depends partly on the group with which he is identified and partly on whether he possesses the traits admired by the group in more highly developed forms than other group members.

12. Because the statuses of leaders and followers tend to be persistent, it is essential that the child be reasonably well satisfied with his role, either as a leader or a follower, if he is to make good personal and social adjustments.

Bibliography

1. Abel, H., and R. Sahinkaya: Emergence of sex and race friendship preferences. *Child Develpm.,* 1962, **33,** 939–943.
2. Adams, B. N.: Occupational position, mobility, and the kin of orientation. *Amer. sociol. Rev.,* 1967, **32,** 364–377.
3. Amatora, Sister M.: Interests of preadolescent boys and girls. *Genet. Psychol. Monogr.,* 1960, **61,** 77–113.
4. Ames, R. G., and A. F. Sakuma: Criteria for evaluating others: A reexamination of the Bogardus Social Distance Scale. *Sociol. soc. Res.,* 1969, **54,** 5–24.
5. Amidon, E.: The isolate in children's groups. *J. teacher Educ.,* 1961, **12,** 412–416.
6. Ausubel, D. P., and H. M. Schiff: Some intrapersonal and interpersonal determinants of individual differences in sociempathic ability among adolescents. *J. soc. Psychol.,*1955, **40,** 39–56.
7. Baker, J. W., and A. Hogworth: Social histories of successful and unsuccessful children. *Child Develpm.,* 1961, **32,** 135–149.
8. Barclay, D.: Friendship's many faces. *The New York Times,* Aug. 13, 1961.
9. Barrett, R. L.: Changes in accuracy of self-estimates. *Personnel Guid. J.,* 1968, **47,** 353–357.
10. Beer, M., R. Buckhout, M. W. Horowitz, and S. Levy: Some perceived properties of the difference between leaders and nonleaders. *J. Psychol.,* 1959, **47,** 49–56.
11. Berkowitz, W. R.: Perceived height, personality and friendship choice. *Psychol. Rep.,* 1969, **24,** 373–374.
12. Blain, M. J., and M. Ramirez: Increasing sociometric rank, meaningfulness, and discriminability of children's names through reinforcement and interaction. *Child Develpm.,* 1968, **39,** 949–955.
13. Blau, B., and J. Rafferty: Changes in friendship status as a function of reinforcement. *Child Develpm.,* 1970, **41,** 113–121.
14. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row, 1966.
15. Bowerman, C. E., and J. W. Kinch: Changes in family and peer orientation of children between the fourth and tenth grades. *Soc. Forces,* 1959, **37,** 206–211.
16. Bowers, D. G.: Self-esteem and the diffusion of leadership style. *J. appl. Psychol.,* 1963, **47,** 135–140.
17. Broderick, C. B., and S. E. Fowler: New patterns of relationship between the sexes among preadolescents. *Marriage fam. Living,* 1961, **23,** 27–30.
18. Cantril, H.: Study of aspirations. *Scient. American,* 1963, **208,** no. 2, 41–45.
19. Clifford, C., and T. S. Cohn: The relationship between leadership and personality attributes perceived by followers. *J. soc. Psychol.,* 1964, **64,** 57–64.
20. Commoss, H. H.: Some characteristics related to social isolation of second grade children. *J. educ. Psychol.,* 1962, **53,** 38–42.
21. Davis, A.: Personality and social mobility. *School Review,* 1957, **65,** 134–143.
22. DeHaan, R. F.: Social leadership. *57th Yearb. Nat. Soc. Stud. Educ.,*

1958, part 2, 127–243.

23. DeJung, J. E., and E. F. Gardner: The accuracy of self-role perception: A developmental study. *J. exp. Educ.*, 1962, **31**, 27–41.
24. Devault, M. V.: Classroom sociometric mutual pairs and residential proximity. *J. educ. Res.*, 1957, **50**, 605–610.
25. Diab, L. N.: A study of intragroup and intergroup relations among experimentally produced small groups. *Genet. Psychol. Monogr.*, 1970, **82**, 49–82.
26. Dreyer, A. S., and D. Haupt: Self-evaluation in young children. *J. genet. Psychol.*, 1966, **108**, 185–197.
27. Duff, J. C.: Quest for leaders. *J. educ. Sociol.*, 1958, **32**, 91–95.
28. Duncan, O. D.: The trend of occupational mobility in the United States. *Amer. sociol. Rev.*, 1965, **30**, 491–498.
29. Dunnington, M. J.: Behavioral differences of sociometric status groups in a nursery school. *Child Develpm.*, 1957, **28**, 103–111.
30. Durogaiye, M. O. A.: Patterns of friendship choices in a mixed ethnic junior school: A sociometric analysis. *Brit. J. educ. Psychol.*, 1969, **39**, 88–89.
31. Dymond, R. F., A. S. Hughes, and V. L. Raabe: Measurable changes in empathy with age. *J. consult. Psychol.*, 1952, **16**, 202–206.
32. Early, C. J.: Attitude learning in children. *J. educ. Psychol.*, 1968, **59**, 176–180.
33. Elkins, D.: Some factors related to the choice-status of ninety eighth-grade children in a school society. *Genet. Psychol. Monogr.*, 1958, **58**, 207–272.
34. Elliott, F.: Shy middle graders. *Elem. Sch. J.*, 1968, **69**, 296–300.
35. Ellis, R. A., and W. C. Lane: Social mobility and social isolation: A test of Sorokin's dissociative hypothesis. *Amer. sociol. Rev.*, 1967, **32**, 237–253.
36. Emmerich, W.: Continuity and stability in early social development. II. Teacher ratings. *Child Develpm.*, 1966, **37**, 17–27.
37. Estvan, F. J.: The social perception of nursery-school children. *Elem. Sch. J.*, 1966, **66**, 377–385.
38. Feldman, R. A.: Group integration and intense interpersonal disliking. *Hum. Relat.*, 1969, **22**, 405–413.
39. Fellin, P., and E. Litwak: Neighborhood cohesion under conditions of mobility. *Amer. sociol. Rev.*, 1963, **28**, 364–376.
40. Fielder, F. E.: A note on leadership theory: The effect of social barriers between leaders and followers. *Sociometry*, 1957, **20**, 87–94.
41. Gallagher, J. J.: Social status of children related to intelligence, propinquity, and social perception. *Elem. Sch. J.*, 1958, **58**, 225–231.
42. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.
43. Goertzen, S. M.: Factors related to opinions of seventh grade children regarding the acceptability of certain behaviors in the peer group. *J. genet. Psychol.*, 1959, **94**, 29–34.
44. Gold, M.: Power in the classroom. *Sociometry*, 1958, **21**, 50–60.
45. Goslin, D. A.: Accuracy of self-perception and social acceptance. *Sociometry*, 1962, **25**, 283–296.
46. Griffitt, W. B.: Personality similarity and self-concept as determinants of interpersonal attraction. *J. soc. Psychol.*, 1969, **78**, 137–146.
47. Guinouard, D. E., and J. F. Rychlak: Personality correlates of sociometric popularity in elementary school children. *Personnel Guid. J.*, 1960, **40**, 438–444.
48. Harris, D. B., and S. C. Tseng: Children's attitudes toward peers and parents as revealed by sentence completions. *Child Develpm.*, 1957, **28**, 401–411.
49. Hartup, W. W.: Peer interaction and social organization. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 2, pp. 361–456.
50. Hartup, W. W., J. A. Glazer, and R. Charlesworth: Peer reinforcement and socioeconomic status. *Child Develpm.*, 1967, **38**, 1017–1024.
51. Hjelle, L. A.: Accuracy of personality and social judgments as functions of familiarity. *Psychol. Rep.*, 1968, **22**, 311–319.
52. Hodge, R. W., and D. J. Treiman: Class identification in the United States. *Amer. J. Sociol.*, 1968, **73**, 535–547.
53. Hunt, R. G., and V. Synnerdahl: Social influence among children. *Sociol. soc. Res.*, 1959, **43**, 171–174.
54. Iverson, M. A.: Attraction toward flatterers of different statuses. *J. soc. Psychol.*, 1968, **74**, 181–187.
55. Izard, C. E.: Personality similarity and friendship. *J. abnorm. soc. Psychol.*, 1960, **61**, 47–51.
56. Jacobs, R. H.: Mobility pains: A family in transition. *Family Life Coordinator*, 1969, **18**, 129–134.
57. Jersild, A. T.: *Child psychology*, 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.
58. Jones, S. C., and D. J. Schneider: Certainty of self-appraisal and reactions to evaluations from others. *Sociometry*, 1968, **31**, 395–403.
59. Katz, E., P. M. Blau, M. L. Brown, and F. L. Strodbeck: Leadership stability and social change: An experiment with small groups. *Sociometry*, 1957, **20**, 36–50.
60. Kingsley, R. F.: Prevailing attitudes toward exceptional children. *Education*, 1967, **87**, 426–430.
61. Kohn, M.: The child as a determinant of his peers' approach to him. *J. genet. Psychol.*, 1966, **109**, 91–100.
62. Krieger, L. H., and W. D. Wells: The criteria for friendship. *J. soc. Psychol.*, 1969, **78**, 109–112.
63. Lesser, G. S.: The relationship between various forms of aggression and popularity among lower-class children. *J. educ. Res.*, 1959, **50**, 20–25.
64. Levinson, B. M.: The inner life of the extremely gifted child, as seen from the clinical setting. *J. genet. Psychol.*, 1961, **99**, 83–88.
65. Levinson, B. M.: The value of pet ownership. *Proc. 12th Annual Convention of Pet Food Institute*, 1969, 12–18.
66. Liddle, G.: Overlap among desirable and undesirable characteristics in gifted children. *J. educ. Psychol.*, 1958, **49**, 219–228.
67. Loewenthal, K.: How are "first impressions" formed? *Psychol. Rep.*, 1967, **21**, 834–836.
68. Lorber, N. L.: Concomitants of social acceptance: A review of research. *Psychology*, 1969, **6**, 53–59.

69. Lott, A. J., B. E. Lott, and G. M. Matthews: Interpersonal attraction among children as a function of vicarious reward. *J. educ. Psychol.*, 1969, **60**, 274–283.

70. Lott, B. E., and A. J. Lott: The formation of positive attitudes toward group members. *J. abnorm. soc. Psychol.*, 1960, **61**, 297–300.

71. Luft, J.: Monetary value and the perception of persons. *J. soc. Psychol.*, 1957, **46**, 245–257.

72. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.*, 1961, **75**, no. 5.

73. Marshall, H. R.: Training adults to judge children's social acceptance. *J. educ. Psychol.*, 1962, **53**, 27–31.

74. Mayer, G. R., G. D. Kranzler, and W. A. Matthes: Elementary school counseling and peer relations. *Personnel Guid. J.*, 1967, **46**, 360–365.

75. McCandless, B. R., C. B. Bilous, and H. L. Bennett: Peer popularity and dependence on adults in preschool age socialization. *Child Develpm.*, 1961, **32**, 511–518.

76. McDavid, J. W., and H. Harari: Stereotyping of names and popularity in grade-school children. *Child Develpm.*, 1966, **37**, 453–459.

77. McKinney, J. P.: The development of choice stability in children and adolescents. *J. genet. Psychol.*, 1968, **113**, 79–83.

78. Medinnus, G. R.: An examination of several correlates of sociometric status in a first-grade group. *J. genet. Psychol.*, 1962, **101**, 3–13.

79. Minturn, L., and M. Lewis: Age differences in peer ratings of socially desirable and socially undesirable behavior. *Psychol. Rep.*, 1968, **23**, 783–791.

80. Mischel, W.: Sex-typing and socialization. In P. H. Mussen (ed.): *Carmichael's manual of child psychology*, 3d ed. New York: Wiley, 1970, vol. 2, pp. 3–72.

81. Moore, S., and R. Updegraff: Sociometric status of preschool children related to age, sex, nurturance-giving and dependency. *Child Develpm.*, 1964, **35**, 519–524.

82. Muldoon, J. F.: The concentration of liked and disliked members in groups and the relationship of concentration to group cohesiveness. *Sociometry*, 1955, **18**, 73–81.

83. Mussen, P. H., J. J. Conger, and J. Kagan: *Child development and personality*, 3d ed. New York: Harper & Row, 1969.

84. Naegele, K. N.: Friendship and acquaintances: An exploration of some social distinctions. *Harv. educ. Rev.*, 1958, **28**, 232–252.

85. Nelson, D. O.: Leadership in sports. *Res. Quart. Amer. Ass. Hlth. Phys. Educ. Recr.*, 1966, **37**, 268–275.

86. Nelson, P. D.: Similarities and differences among leaders and followers. *J. soc. Psychol.*, 1964, **63**, 161–167.

87. Northway, M. E.: Outsiders. In J. L. Moreno (ed.): *The sociometry reader.* Glencoe, Ill.: Free Press, 1960, pp. 455–470.

88. Packard, V.: *The status seekers.* New York: Pocket, 1961.

89. Packard, V.: *The pyramid climbers.* New York: McGraw-Hill, 1962.

90. Phillips, B. N.: Age changes in accuracy of self-perceptions. *Child Develpm.*, 1963, **34**, 1041–1046.

91. Pielstick, N. L.: Perception of mentally superior children by their classmates. *Percept. mot. Skills*, 1963, **17**, 47–53.

92. Reese, H. W.: Attitudes toward opposite sex in late childhood. *Merrill-Palmer Quart.*, 1966, **12**, 157–163.

93. Schachter, S.: Birth order and sociometric choice. *J. abnorm. soc. Psychol.*, 1964, **68**, 453–456.

94. Sears, R. R., E. E. Maccoby, and H. Levin: *Patterns of child rearing.* New York: Harper & Row, 1957.

95. Sewell, W. H., and A. O. Haller: Factors in the relationship between social status and the personality adjustment of the child. *Amer. sociol. Rev.*, 1959, **24**, 511–520.

96. Skorepa, C. A., J. E. Horrocks, and G. G. Thompson: A study of friendship fluctuations of college students. *J. genet. Psychol.*, 1963, **102**, 151–157.

97. Smith, C. R., L. Williams, and R. H. Willis: Race, sex, and belief as determinants of friendship acceptance. *J. Pers. soc. Psychol.*, 1967, **5**, 127–137.

98. Steiner, I. D.: Reactions to adverse and favorable evaluations of one's self. *J. Pers.*, 1968, **36**, 553–563.

99. Sticht, T. G., and W. Fox: Geographical mobility and dogmatism, anxiety, and age. *J. soc. Psychol.*, 1966, **68**, 171–178.

100. Stubbefield, R. L.: Children's emotional problems aggravated by family moves. *Amer. J. Orthopsychiat.*, 1955, **25**, 120–126.

101. Sutton-Smith, B., and B. G. Rosenberg: Peer perceptions of impulsive behavior. *Merrill-Palmer Quart.*, 1961, **7**, 233–238.

102. Switzer, R. E., J. C. Hirschberg, L. Myers, E. Gray, N. H. Evers, and R. Forman: The effect of family moves on children. *Ment. Hyg., N. Y.*, 1961, **45**, 528–536.

103. Taylor, F. K.: Awareness of one's social appeal. *Hum. Relat.*, 1956, **9**, 47–56.

104. Terrell, G., and J. Shreffler: A developmental study of leadership. *J. educ. Res.*, 1958, **52**, 69–72.

105. Tolor, A., and S. Orange: An attempt to measure psychological distance in advantaged and disadvantaged children. *Child Develpm.*, 1969, **40**, 407–420.

106. Tooley, K.: The role of geographic mobility in some adjustment problems of children and families. *J. Amer. Acad. child Psychiat.*, 1970, **9**, 366–378.

107. Tulkin, S. R., J. P. Muller, and L. K. Conn: Need for approval and popularity: Sex differences in elementary school students. *J. consult. clin. Psychol.*, 1969, **33**, 35–39.

108. Walters, J., D. Pearce, and L. Dahms: Affectional and aggressive behavior of preschool children. *Child Develpm.*, 1957, **28**, 15–26.

109. Walters, R. H., W. E. Marshall, and J. R. Shooter: Anxiety, isolation and susceptibility to social influence. *J. Pers.*, 1960, **28**, 518–529.

110. Wayne, D.: The lonely school child. *Amer. J. Nursing*, 1968, **68**, 774–777.

111. Weiner, P. S.: Personality correlates of accuracy of self-appraisal in four-year-old chil-

dren. *Genet. Psychol. Monogr.*, 1964, **70,** 329–365.

112. Westoff, C. F., M. Bressler, and P. C. Sagi: The concept of social mobility: An empirical inquiry. *Amer. sociol. Rev.*, 1960, **25,** 375–385.

113. Williams, J. E.: Acceptance by others and its relationship to acceptance of self and others. *J. abnorm. soc. Psychol.*, 1962, **65,** 438–442.

114. Williams, M. F.: Acceptance and performance among gifted elementary school children. *Educ. Res. Bull.*, 1958, **37,** 216–220, 224.

115. Witryol, S. L., and J. E. Calkins: Marginal social values of rural school children. *J. genet. Psychol.*, 1958, **92,** 81–93.

116. Wolman, B.: Leadership and group dynamics. *J. soc. Psychol.*, 1956, **42,** 11–25.

117. Yasuda, S.: A methodological inquiry into social mobility. *Amer. sociol. Rev.*, 1964, **29,** 16–23.

118. Zaleznik, A.: The human dilemmas of leadership. *Harv. bus. Rev.*, 1963, **41,** 49–55.

119. Ziller, R. C.: The alienation syndrome: A triadic pattern of self-other orientation. *Sociometry* 1969, **32,** 287–300.

120. Ziller, R. C., and R. D. Behringer: A longtitudinal study of the assimilation of the new child in the group. *Hum. Relat.*, 1961, **14,** 121–133.

121. Ziller, R. C., R. D. Behringer, and J. D. Goodchilds: The minority newcomer in open and closed groups. *J. Psychol.*, 1960, **50,** 75–84.

BURK UZZLE—MAGNUM

CHAPTER TWELVE Play

THE HUMAN LIFE PATTERN is divided into two separate and distinct spheres—the world of work and the world of play. According to tradition, the former belongs to adulthood and the latter to childhood. Work is often regarded as an evil necessary to ensure survival, while play is fun.

Many parents, in keeping with the belief that childhood must be happy and carefree if children are to grow up to be well-adjusted adults, want their children to live in the world of play as long as possible. They provide them with all kinds of play equipment and free them from home duties and responsibilities. With the present-day emphasis on making good social adjustments, parents encourage their children to play with other children, and they choose homes in areas where playmates will be readily available.

Schools have acknowledged the educational value of play by introducing into the curriculum organized games and sports, dramatics, singing, and art.

Today more than ever before, manufacturers of toys and play equipment emphasize the educational value of their products. Many parents feel that if expensive toys have an educational as well as a fun value, they must be worth the personal sacrifice needed to purchase them. Similarly, to counteract some of the criticism leveled against them, TV producers currently emphasize the educational value of children's television programs.

Meaning of Play

"Play" is a term so loosely used that its real significance is apt to be lost. In its strictest sense it means *any* activity engaged in for the enjoyment it gives, without consideration of the end result. It is entered into voluntarily and is lacking in external force or compulsion.

Play may be either active or passive. In *active* play, the enjoyment comes from what the individual does, whether it is running just for the fun of running or constructing something with paints or clay. Children engage in active play less as they approach adolescence and have more home and school responsibilities and a lower energy level, owing to rapid growth and body changes.

In *passive* play—generally called "amusements"—enjoyment is derived from the activities of others. The player himself expends a minimum of energy. The child who enjoys watching other children play, watching people or animals on television, looking at the comics, or reading books is playing with a minimum expenditure of energy, but his enjoyment may be equal to that of the child who expends great amounts of energy in the gym or on the playground.

At all ages, children engage in both active and passive play. The proportion of play time devoted to each depends not on the child's age, however, but upon his health and the enjoyment he derives from each. While, typically, active play predominates in early childhood and amusements in late childhood, this is not always true. A young child may prefer television to active play, for example, because he has not learned how to play the games of his age-mates and, therefore, is not an accepted member of the peer group. If he learns to play well enough to be accepted as a gang member later, his interest in active play will replace his earlier interest in such amusements as reading and television.

"Work" and "drudgery" differ greatly from play. Work is an activity toward an end: The individual carries out the activity, not necessarily because he enjoys it, but because he wants the end result. Work may be done voluntarily or involuntarily. Drudgery—work that is imposed on the individual by others—has no element in common with play; it is not engaged in voluntarily, nor is its end result important to the person.

Traditional Attitudes toward Work and Play

Traditionally, all leisure has been associated with loafing and wasting time that might be spent more profitably in other activities. This point of view was expressed in the saying that "idle hands will find some mischief to do." Leisure-time pursuits were kept strictly for the end of the day or for holidays.

Work, by contrast, has been held in high esteem. It was traditionally regarded as the most acceptable way for a person to demonstrate his worth. If he worked hard, it was believed, he would not only succeed in whatever he undertook—his schoolwork or his vocation—but he would gain prestige in the eyes of the social group (34, 78).

Today, with automation eliminating work by hand and with big business replacing individual enterprise, the high cultural value traditionally attached to work and the low cultural value attached to leisure are being questioned (34). This questioning has come partly from evidence that social esteem is no longer limited to those who work hard but is also given to those who play hard. In some parts of our society, peer as well as parental esteem is higher for children who stand out in athletics or other extracurricular activities than for those who are successful academically (21).

Psychological and sociological studies have been finding that play has values undreamed of in the past. Consequently, the traditional view that leisure activities are a waste of time is no longer accepted as valid. Instead, play is beginning to receive as high a value rating as work, and in childhood, an even higher rating (34). In this chapter, the advantages of play will be examined and the different kinds of childhood play will be evaluated.

PLAY VERSUS WORK

Although many people try to make a distinction between work and play activities, no activities may be classed exclusively as either. Whether an activity belongs in one category or the other depends not upon the activity itself but upon the individual's *attitude* toward it. Collecting, for example, is a form of play for a child or an adult who makes it a hobby, but it is work for the person who collects articles to sell for a profit. Figure 12–1 shows that the same activity may be play, work, or drudgery.

Any activity that is directed toward an end other than enjoyment cannot rightly be called play. Games and sports are play to young children because winning or competing does not enter in; the only aim is to have fun. As children grow older, however, rivalry between gangs becomes important, and games or sports then become highly competitive. As a result, these activities become more like work than play. The end result is to beat the rival gang rather than to enjoy the activity itself.

In Box 12–1 are shown several elements that commonly appear in both work and play. Their appearance in each activity, however, varies quantitatively as well as qualitatively. An activity regarded as play will thus differ markedly from one regarded as work (62).

RELATIVE TIME SPENT IN WORK AND PLAY

"All work and no play makes Jack a dull boy." In recent years, this has been interpreted to mean that the more play the child has, the happier, more alert, and better adjusted he will be. Evidence from studies of the value of play and work, however, suggest that work contributes to the psychological well-being of the child just as play does (34, 78, 114).

How much time should be devoted to play and how much to work will depend on the age of the child and his personal needs. Some children derive their greatest satisfaction from work achievements, and others, from play. As children grow older, personal satisfaction from work often becomes increasingly important and satisfaction from play less important.

To date, there is not sufficient scientific evidence to indicate the relative amounts of time that should be devoted to work and to play to achieve the best personal and social adjustments. One can conclude what the best balance is, however, from studies of social-class differences in relative time spent on work and play, and then compare this with what is known about personal and social adjustments of children and adults of different social classes. While it is true that other factors contribute to good or poor adjustment, *how a person spends his time* is an important factor.

Box 12–1

IMPORTANT ELEMENTS IN WORK AND PLAY

Common Elements	*Play*	*Work*
Energy level used	Low	High
Clarity of goals	Unspecified	Specified
External symbols of evaluation	Nonessential	Essential
Types of skills needed	Varied	Less varied, designated
Satisfactions accrued	Many and frequent	Periodic and infrequent
Suspension of judgment of performance	Frequent because irrelevant	Infrequent because relevant

There is evidence that children from the middle and upper socioeconomic groups make better personal and social adjustments than those from the lower groups (67). Social adjustments were discussed in Chapter 11, and personal adjustments will be covered in Chapter 18. It is safe to conclude, from the evidence now available, that neither extreme—all work and no play or all play and no work—is as satisfactory as a combination of the two. Which should be given greater weight or whether they should be equal will depend on the age and personal needs of the individual child.

To determine whether a child has the right combination *for him*, one can apply a relatively simple criterion. When a child begins to be bored with play and asks, "What can I do now?" the scale has been too heavily tipped on the play side. If he is bored with his studies or home duties, or if he begins to work below his capacity, it suggests that the work side of the scale has been overloaded; he then needs more time and opportunity for play.

Value of Play

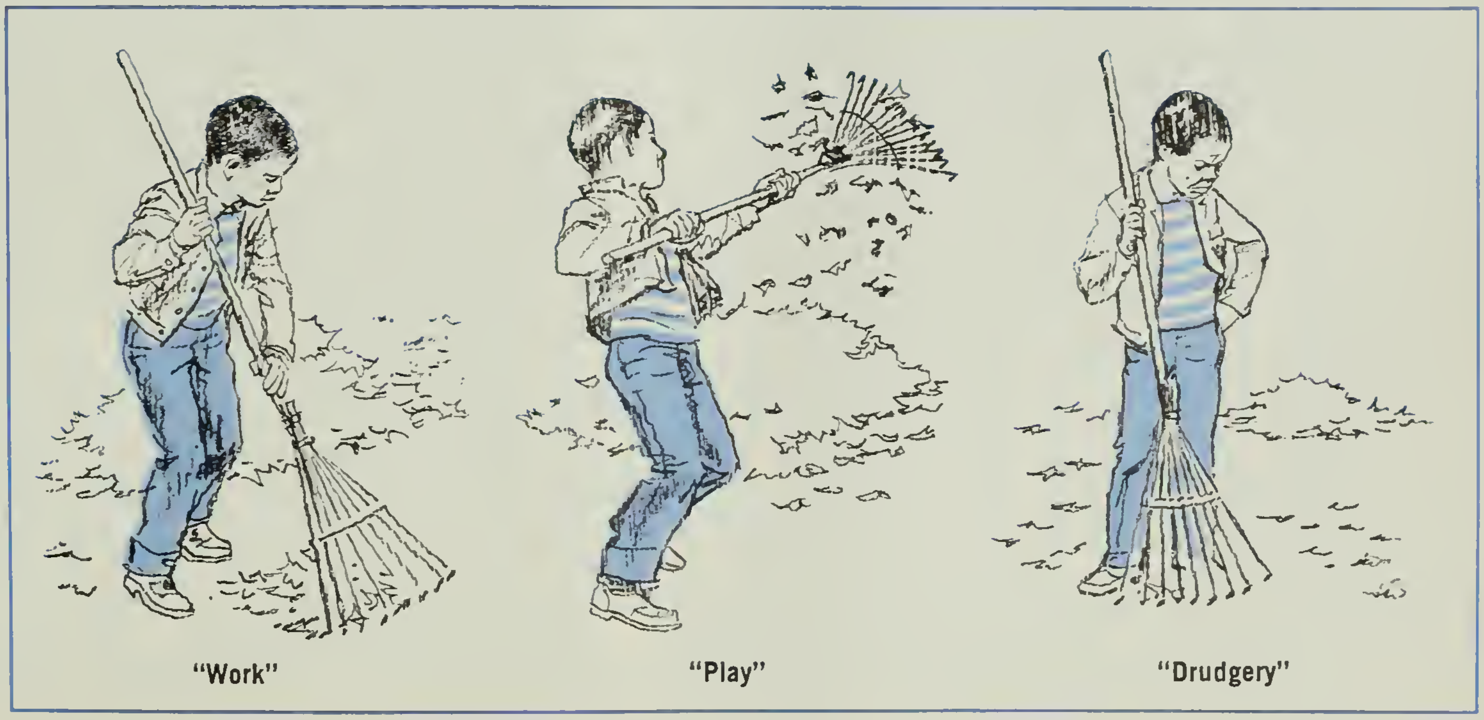
Play is such an accepted part of life today that few people stop to consider its role in the child's development. Millichamp has written that play "helps the child to develop as a person" (70). Play makes many contributions to this goal which cannot be made through other channels.

Physical Value. Active play is essential if the child is to develop his muscles and exercise all parts of his body. It also serves as an outlet for surplus energy which, if pent up, makes the child tense, nervous, and irritable.

As childhood progresses, many children find passive play, such as reading, watching television, or going to the movies, more pleasurable than active play. Their attitude toward different kinds of play is greatly influenced by the attitudes of significant people in their lives, especially parents and peers. Martin and Vincent (65) have stated:

> *The attitude of parents toward physical play and exercise has much to do with the child's attitude. If the parents are enthusiastic about games and sports, or about walks in the open, they will participate in these, sometimes sharing the activity with the child, sometimes teaching the child basic skills in the various sports, but all the time setting an example and passing on their enthusiasm. If, on the other hand, the parents consider*

Figure 12-1. The same activity can be "work," "play," or "drudgery" for the child.



intellectual activities to be the only desirable way to spend time, and if they regard sports and games as something for the unintelligent only, they may discourage activities involving physical play. And the child, consequently, may be retarded in his progress in general body control.

Therapeutic Value. Play is therapeutic. In everyday life, the child needs some release from the tensions that the restrictions imposed by his environment give rise to. Play helps him to express his emotions and get rid of pent-up energy in a manner that will win social approval (see Chap. 9).

This purpose may be served by active physical play or by indirect methods, such as identifying with a character in a book, in a movie, or on television. As the child reads a story or watches a play unfold on the screen, he can give vent to his fears, resentments, anxieties, or even his joys and thus clear his system (74, 91, 97).

Play also provides an *outlet for needs and desires* which cannot be met in any other way. If they are met satisfactorily in play—in dramatic play or through identification with fictional characters—the frustrations of daily life will then be lessened. The child who wants to be a leader, for example, may not be able to achieve this status in real life, but in dramatic play, he can be the father, the teacher, or the general of his army of toy soldiers (20, 42, 60).

Educational Value. Through his play with toys, the young child learns the shapes, colors, sizes, and textures of objects as well as their significance. As he grows older, he develops many skills in games and sports. Exploring, collecting, and other favored play activities in late childhood furnish the child with information that cannot be obtained from school books.

Books, plays, concerts, and well-selected movies broaden the child's knowledge and at the same time give him enjoyment. Material in books and movies and on television is often presented with vivid imagery and in exciting forms; it captures and holds the child's attention, thus increasing his motivation to learn. Play helps the child to comprehend and control the world in which he lives and to distinguish between reality and fantasy (93, 114).

Creativity Value. Play offers the child an opportunity to be creative. He can experiment and try out his ideas in toy play, in constructions of different sorts, and in dramatizations. Once he learns that creating something new and different can be satisfying, he will transfer his creative interest to situations outside the play world. Creativity will be discussed in detail in Chapter 13.

Self-insight Value. In play, the child learns about himself and his relationships with others. He learns what his abilities are and how they compare with those of others. This enables him to establish a more definite and realistic concept of himself. In addition, he learns about his problems and how to face them.

Play permits the child to experiment and to test his abilities without taking full responsibility for his actions, as he would have to in more serious activities. In drawing, for example, he can experiment as much as he pleases and know that he will not be graded on the basis of what he has drawn. In play, the child assumes many different roles and thus learns which roles give him the greatest satisfaction and at the same time enable him to establish the most satisfying relationships with others.

Social Value. By playing with other children, the child learns how to establish social relationships with strangers and how to meet and solve the problems such relationships bring. Through cooperative games, even with adults, he learns to give and take. Adults tend to be tolerant of children's aggressive tendencies, however, and so cooperation is more readily learned from play with other children.

One of the greatest social values of play is that the child learns the appropriate patterns of the sex role that society expects him to fulfill. By pretending to be the people who embody the socially approved patterns of behavior for his sex group, he learns what these patterns are. Very early in his play life, he discovers that certain toys and play activities are appropriate for members of his sex, while others are appropriate for the other sex. This makes him sex-role conscious—an essential to learning the approved role in other areas of life.

Moral Value. Play makes an important contribution to the moral training of the child. Although he learns at home and in school what the group considers right and wrong, the enforcement of moral standards is nowhere so rigid as in the play group. The child knows that he must be fair, honest, truthful, self-controlled, a good sport, and a good loser if he is to be an acceptable member of the play group. He also knows that his playmates are far less tolerant of his lapses from the accepted codes of behavior than parents and teachers. He therefore learns to toe the mark more quickly and more completely in play than in any other situation.

Characteristics of Children's Play

Studies show that children's play has certain characteristics that differentiate it from adult play. These characteristics are practically universal, as the following paragraphs will show.

Play Is Influenced by Tradition. Since the activities in any culture are more or less stereotyped, the play of little children in a particular culture changes little from generation to generation, whatever the specific neighborhood environment. Young children imitate the play of older children, who have imitated the play of the generation of children preceding them. Thus, in every culture, one generation passes down to the next the forms of play it finds most satisfactory.

Studies reveal that pictures of children in different cultures and at different times in history show them playing with balls and other toys not unlike those used by American children today. For example, when babies are just beginning to walk, a walking toy, used as a prop to help them maintain their balance, has been recognized for centuries as a favorite toy.

The influence of tradition has also been observed in the drawings of children of different cultures. A comparison of the drawings of Bedouin children and American children shows that those of Bedouin children are, by tradition, small compared with those of American children of the same age. Bedouin drawings average approximately 2 inches in height, while those of Americans average approximately 6. Traditionally, drawings of Bedouin children show rectangular human trunks and an absence of clothing; those of American children show clothed and rounded trunks (25).

The influence of tradition is also apparent in the *seasonal patterns* of children's play. Roller skates, jumping ropes, jacks, and bicycles come out on the first warm days of spring. With the approach of winter, children look forward to snow for sledding, snowball fighting, ice skating, and—in rural districts—sleigh riding.

Play Follows a Predictable Pattern of Development. From early babyhood to maturity, certain play activities are popular at one age and not at another, regardless of the environment, nationality, socioeconomic status, and sex of the child. These play activities are so universally popular and predictable that it is customary to divide the childhood years into specific play stages, each with its own name. These stages are described in Box 12–2.

Different kinds of play also follow predictable patterns. *Block play,* it has been reported, passes through four distinct stages. In the first, the child merely handles and carries blocks and piles them in irregular

Box 12–2

STAGES IN PLAY DEVELOPMENT

Exploratory Stage

Until the baby is about 3 months old, his play consists mainly of looking at people and objects and making random movements in an attempt to grab objects held before him. From then on, his arms and hands come under enough voluntary control to enable him to grasp, hold, and examine small objects. After he can walk, he plays by pushing or pulling wheel toys. Figure 8–2 shows the percentage of waking time babies spend exploring toys.

Toy Stage

Toy play begins in the first year and reaches a peak between 7 and 8 years. At first, the child merely explores his toys. Between the ages of 2 and 3 years, he imagines that they have life qualities—that they are capable of talking, acting, and feeling. As he develops intellectually, he is no longer able to endow inanimate objects with life qualities, and this dampens his interest in them. Other factors that contribute to a decline in toy play are that it is mainly solitary and the child wants companionship, and after entering school, he regards toy play as babyish.

Play Stage

After the child enters school, his play repertoire greatly increases, giving this stage its label. At first, he continues to play with toys and, in addition, becomes interested in games, sports, and hobbies.

Daydream Stage

The older child loses interest in the play activities he formerly enjoyed and spends much of his play time daydreaming. The characteristic daydreams of the pubescent are of the martyr type, in which he sees himself as misunderstood and mistreated by everyone.

masses; in the second, he constructs rows and towers; in the third, he develops techniques for building more complicated designs; and in the fourth, he dramatizes and reproduces actual structures. At 3 years of age —in the first stage—the child is primarily concerned with balance and size and ways of combining blocks; by 4, he begins to make crude and sprawling structures, loosely hung together; at 5, he can build highly integrated, carefully balanced structures; and at 6, he uses these intricate structures as settings for dramatic play (63, 72). Definite patterns also appear in *drawing,* starting with scratching and dotting with a crayon in the 1-year-old and developing into drawing pictures against backgrounds by the time the child is 8 (25, 99). Similarly, *reading* interests and interest in *movies, collecting, television, radio,* and *singing* develop in a more or less regular order and at predictable times.

Play Activities Decrease with Age. The number of play activities engaged in gradually decreases as children grow older. Comparative studies have reported that among 8-year-olds, an average of 40.11 different play activities are engaged in during 1 week, while among persons 12 years old and older, the average is 17.71. Activities involving play with other children likewise decrease with age. At 7½ years, the average is 27, as compared with 21 at 11½ years and 13 at 16½ years (99, 114).

The decrease is due to a number of reasons. Older children have less *time* available for play, and they want to spend it in ways that give them greatest enjoyment. As their *attention span* increases, they can concentrate on a play activity longer instead of flitting from one to another as they did when they were younger. Children abandon some activities because they have become *boring* or are regarded as babyish. For example, kindergarten children show a decreasing interest in blocks as other materials—paints, clay, crayons, and chalk—offer a greater variety of interesting activities.

The narrowing of the number of play activities may be the result of *lack of playmates.* Children who are not accepted in the peer group find themselves limited to activities they can enjoy alone. This is especially true for older boys, because most of the play of this group centers in gang activities.

Time Spent in Play Decreases with Age. As leisure time decreases because of new schoolwork and new duties, the child has less and less time for play.

Time Spent in Specific Activities Increases with Age. Because of their short attention span, little children go from one toy to another or from one play activity to another. As they grow older and intellectually more mature, they comprehend more, their interest does not wane so quickly, and they can attend to what they are doing for longer periods. When interest in an activity wanes, however, children spend less time on that activity (63).

Number of Playmates Decreases with Age. A young child will play with anyone who is available and willing to play with him. When he finds a child who is playing in a more interesting way, he will shift from the child he is with to the new one. In a neighborhood or school group, he regards *all* group members as potential playmates.

After the child becomes a member of a gang, all this changes. He wants to play with a small, select group—*his* gang—whose members have common interests and whose play gives him particular satisfaction. He limits the number of his playmates and spends all his play time with them (28). This is true of children of both high and low socioeconomic status (see Figure 12–2).

Play Becomes Increasingly Sex Appropriate. Babies and very young children make little distinction between boys' toys and girls' toys, and children of both sexes play in much the same way. By the time they enter school, however, boys are clearly aware that boys do *not* play with certain toys unless they want to gain the reputation of being sissies (24).

Boys not only drop their girl playmates when they enter school but they also shy away from all play activities which are not regarded as appropriate for them. Even when girls prefer play activities which the social group regards as "masculine," they, like boys, are influenced by social pressures to play in a sex-appropriate manner. As a result, the sex appropriateness of *all* children's play increases each year.

Childhood Play Changes from Informal to Formal. The play of little children is spontaneous and informal. The child plays when and with what toys he wishes, regardless of time or place. He does not need special play equipment or special playclothes. Gradually, play becomes more and more formal. During the gang age, for example, the child feels that special clothing, special equipment, and a special place for play are essential. Appointments are made to meet and play at a definite time, and each player is expected to appear promptly.

Play Is Less Physically Active as Children Grow Older. During the first three grades in school, children care little about sedentary play until late in the day, when they are tired. Then they like to watch television or be read to. From grade four on, however, there is a gradual increase in time spent in reading, going to the movies, watching television, listening to the radio, listening to music, and watching sports events.

Interest in active play reaches its lowest point during early puberty. At that time, children not only withdraw from active play but also spend little time reading, playing indoor games, or even watching television. Most of their playtime is devoted to daydreaming—a form of play that requires a minimum expenditure of energy.

Childhood Play Varies Greatly. Although all children pass through similar and predictable stages of play, not all children play the same way at the same age. Variations in children's play may be traced to a number of factors, the most important of which are given in Box 12–3. A survey of the different kinds of play children engage in will show how large the play repertoire of the typical child is. It is important to note, however, that not all children engage in all the play activities discussed below, though most children engage in a majority of them at some time or other. There are also certain ages when each kind of play is especially popular and gives the maximum satisfaction.

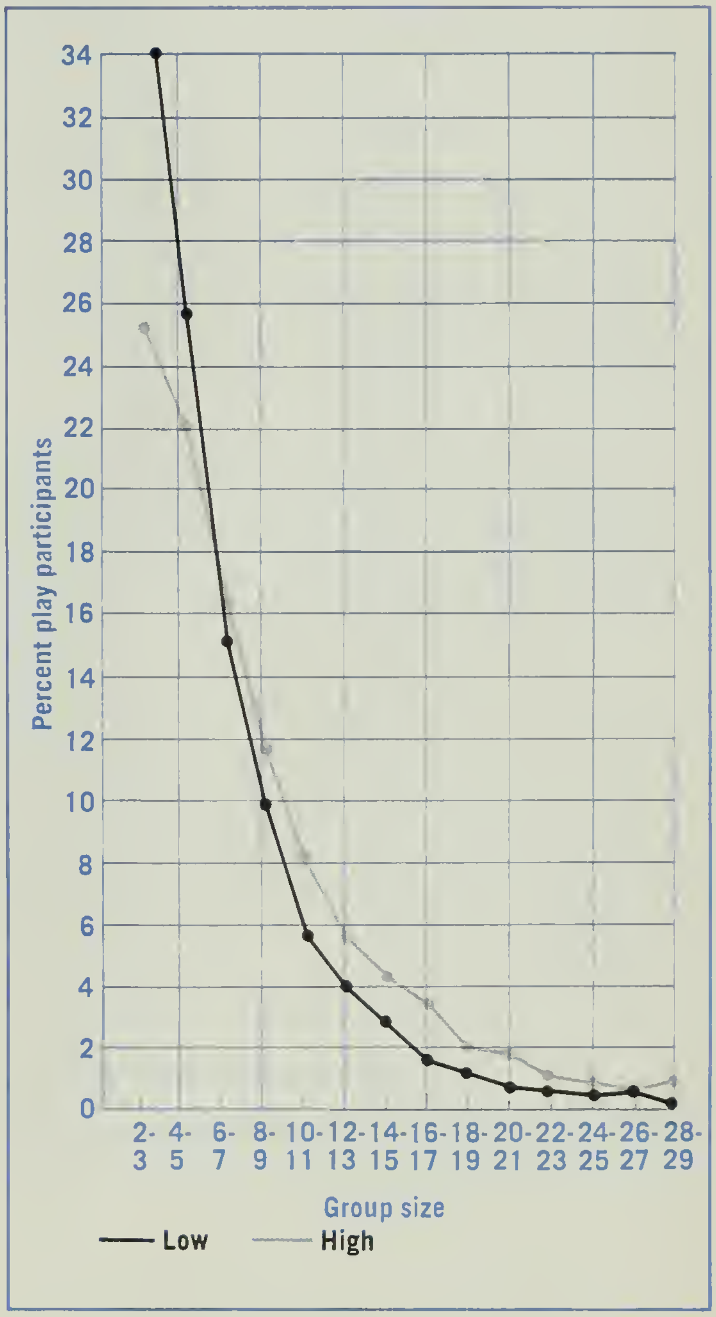
Free, Spontaneous Play

The child's earliest play is free and spontaneous. It has no rules and regulations and is, for the most part, solitary. The child plays as he wishes to play and stops when he is no longer interested. This kind of play loses popularity late in childhood, when competitive games are more favored.

Free, spontaneous play is mostly exploratory. The baby derives keen enjoyment from stimulating the sense organs and experiencing different sensations. By the time he is 3 months old, he explores his toys and any other objects within his reach by sucking, banging, and pulling at them. Refer to Figure 8–2 for a graphic illustration of toy manipulation during the first year of life. By the end of the first year or the middle of the second, the child turns to more complicated forms of play that match his developing mental ability.

Studies of the exploratory play of babies show that even as early as the first year of life there are sex differences in play. Boys and girls may play with the same kinds of toys, but they use the toys differently. Boys are more active and more destructive. Girls, by contrast, spend more time in exploratory play and display more fine-muscle coordination; as a result, they are less destructive. Whether these sex differences reflect parental encouragement or the more rapid mental and motor development of girls has not been determined experimentally (38, 55, 83).

Figure 12–2. Percentages of play participants in different sizes of group in schools of high and low socioeconomic status. (Adapted from R. R. Eifermann. Level of children's play as expressed in group size, Brit. J. educ. Psychol., *1970,* **40,** *161–170. Used by permission.)*



Dramatic Play

In dramatic or make-believe play, the child, through language or overt behavior, deals with materials or situations as if they had attributes other than those they actually have. Dramatic impersonations usually begin between the ages of 1½ and 2 years and reach their peak at about 5½ years (40, 64). This kind of play loses much of its appeal after the child enters school because he then begins to view life more realistically. His ability to attribute living qualities to inanimate objects and to imagine that situations are different from what they actually are decreases as his ability to reason increases.

Very bright children enjoy dramatic play even more than children of lower intellectual levels. They usually lose interest in this play quite early, however, because their reasoning ability develops rapidly and they become realistic relatively early. Girls, as a rule, engage in dramatic play more than boys, though it is popular with members of both sexes. It is no more popular with solitary children than with those who have other children to play with. In fact, having playmates to take different roles in a make-believe situation enhances its pleasure for most children. Because dramatic play is a form of creativity, it will be discussed in detail in Chapter 13.

Daydreaming

Daydreaming is a form of mental play. The role the child adopts in his daydreams is dramatic, heroic, fanciful, and remote from daily life. In make-believe

Box 12-3

FACTORS INFLUENCING CHILDREN'S PLAY

Health

The healthier the child, the more surplus energy he has for active play, games, and sports. Children who lack energy prefer passive play.

Motor Development

As children's play at every age involves motor coordination, what the child will do with his play time will depend on his motor development. Good muscle control enables the child to participate in active play.

Intelligence

At every age, bright children are more active than the less bright, and their play shows greater ingenuity. As they grow older, they show more interest in intellectual games, in dramatics and construction, and in reading. Bright children show a greater balance of play interests, including both distinctly physical and distinctly intellectual pursuits.

Sex

Boys play more strenuously than girls and prefer games and sports to all other kinds of play. In early childhood, boys show a greater range of play interests than girls, but the reverse is true in later childhood.

Environment

Children from poor environments play less than others, owing to poorer health and less time, equipment, and space. Children from rural environments play less than those from urban areas, owing to fewer playmates, less equipment, and less free time.

Socioeconomic Status

Children of higher socioeconomic groups prefer activities that cost money, such as going to skating rinks and athletic contests; those from the lower groups engage in activities costing little money, such as ballgames and swimming. Social class influences the books the child reads, the movies he sees, the kind of recreational groups he belongs to, and the supervision he has.

Amount of Leisure Time

Amount of play time depends primarily on the family's economic status. If household duties or jobs take up most of his out-of-school time, the child is too tired to engage in activities requiring a large expenditure of energy.

Play Equipment

The play equipment the child has influences his play. A predominance of dolls and toy animals encourages make-believe play; a predominance of blocks, paints, and clay encourages constructive play.

play, the child may play the role of an aviator by donning an aviator's cap and pretending to ride through space as he runs across the playroom with a toy airplane held above his head. In a daydream, he sees himself as a real aviator, garbed in all the colorful clothing of an aviator and riding through space at the controls of a real airplane.

While the young child generally centers his make-believe play around the mundane experiences of daily life, such as playing house or playing Sunday school, the daydream has more glamour, romance, and excitement in both setting and action. Many of the ideas for daydreams come from books, comics, movies, and television programs that have an element of the fanciful or the unreal (40, 83).

About the time the child enters school, daydreaming replaces make-believe play. It reaches a peak during puberty. It is popular among older children when they are bored or restricted in other play, as when they must sit through a long, drawn-out family meal. A *well-adjusted child* usually daydreams only when he cannot engage in other forms of play. The *poorly adjusted child,* by contrast, *substitutes* daydreaming for play with other children or for constructive play.

Most children are too full of energy to be satisfied with such inactive play as daydreaming. With the rapid growth and physical changes that accompany puberty, however, the child's energy is depleted, and he substitutes mental for physical play. Girls daydream more than boys at every age. At puberty, girls develop more rapidly than boys and, consequently, have less energy for active play. Since daydreams are a form of creativity, the pattern of daydreams and their content will be discussed in more detail in the next chapter.

Constructive Play

Up to the age of 5 or 6 years, the child puts objects together without a preconceived plan or pattern. If, by chance, they resemble a familiar object, he is delighted. From the age of 6, however, he uses materials specifically and appropriately for building.

Early constructive play consists of making mud pies, building mountains or tunnels from sand, and playing with blocks, beads, scissors, clay, paint, crayons, and paste. Although young children may make something that has a definite meaning and can be recognized, the object's practical use is of secondary importance. In block building, for example, children call their structures "houses" or "boats," but not until after the third year is block construction coordinated with dramatic play. By the time they reach kindergarten, most children shift their interest from block building to clay modeling, finger painting, playing with puzzles, and making collages.

Boys produce large, crude structures in connection with their outdoor play. Girls, on the other hand, construct finer and more delicate objects; they make doll clothes, paper dolls, and drawings.

The young child is pleased with whatever he makes and proudly displays it to anyone who happens to be present. Later, he becomes more critical of his workmanship, especially in painting and drawing. He not only ceases to boast about his work but often covers it up or even destroys it if others come to look at it.

At first, most children's constructions are not goal-directed. They are not, therefore, a form of creativity. Even before children enter school, however, their constructions begin to show signs of originality. Each year, as they grow older, originality becomes more important than mere duplication of what they see in daily life. This new element and its role in giving children satisfaction from their constructive play will be discussed in the following chapter on creativity.

Music

Music in its many forms appeals to children as a kind of play. Whether they perform or listen, they derive keen enjoyment from it. Regardless of their musical talent, little children like to sing. The baby engages in this form of self-expression when he introduces rhythm into his babbling. It gives him great pleasure, and he laughs heartily at himself. Children give a bodily response to music while they are still in the crib. Later, they spontaneously walk, hop, and clap to the accompaniment of music. By the age of 4 or 5 years, most children can sing simple melodies, beat good rhythm, and recognize simple tunes. When they do not know all the words of a song, they supply their own (52).

Young children like to listen to music produced by others. Among preschool children, listening to records is popular, but in the latter part of childhood, listening to music on the radio becomes a favorite pastime. Children derive the greatest enjoyment from listening to music produced by themselves, even though it may be vastly inferior to that produced by others.

The way children use music as a form of play follows a developmental pattern. At 2 years, the child dances to radio or phonograph music; at 3, he likes to watch and listen to a phonograph, he can recognize several melodies, and he may have his favorites. A year later, he can run the phonograph himself, he likes to experiment with the piano, and he can sing songs correctly and likes to dramatize them. At 5 years, the child may pick out tunes on the piano and learn to play a few familiar, simple melodies; he likes to sing or dance to music on the radio or phonograph. At 6, he enjoys his own phonograph records. At 7, he has a craving for piano or dancing lessons and likes to use various percussion instruments; at 8, he shows less desire to practice but likes to have an audience when he plays; he like to play duets, and he may even improvise passages of his own. At 9 years, the child really applies himself to practice; he is beginning to be interested in composers, and he enjoys executing staccato or legato notes (80, 85).

Singing is the most frequent form of musical expression because it requires no technical training. Children's favorite songs vary according to their major current interests. During the first four grades of school, children's songs are the most popular. As the child grows older, there is an increased interest in classical, folk, and patriotic songs and less interest in religious and holiday songs. Interest in popular and dance music increases with age (35, 79, 80).

Collecting

Collecting things is a common kind of play for every normal child. It begins during the preschool years, usually by the time the child is 3 years old. At first, the child collects anything and everything that attracts his attention, regardless of its usefulness. It gives him pleasure to pick up things and carry them home, where he usually puts them with his toys and other possessions. Once collected, things are often forgotten. After the child starts to play with other children, however, he often trades what he has collected for things his playmates have.

From the time children enter school until they reach puberty, collecting things that interest them at the moment or are similar to what their playmates collect is one of the most popular forms of play for both boys and girls. It gives them a sense of pride to have larger collections than their playmates, and they often engage in long trading or bartering sessions.

At no time is collecting motivated by a desire to make use of what is accumulated. Thus, collecting is play in the strictest sense because the enjoyment comes more from the activity itself than from any practical value it might have. The older child usually keeps his collection in some systematic arrangement, as in carefully labeled envelops or jars. Systematizing his collection is fun, but it also enables the child to display it better and thus win the admiration and envy of his playmates.

While the young child is a random collector, the older one collects those things which have prestige in the peer group. If his peers are interested in foreign stamps or pictures of baseball players, for example, he will be interested too, hoping to collect a larger number of these prestigious items than they. When peer interest shifts, so does that of the child.

Girls, at every age, are more interested in collecting than boys. As girls approach adolescence, less prestige is associated with competition in games and sports, and, as a result, competition in collecting provides a substitute source of satisfaction (37).

Games and Sports

Games and sports are contests with set rules, undertaken for amusement or for a stake. *Sports* are always physical contests, while *games* may be either physical or mental. Sports usually, though not always, involve either greater physical exertion or more rigid rules than games. The term "sport" is usually reserved for contests of highly organized teams, such as baseball, football, or basketball, though it can apply to individual outdoor contests, such as track, tennis, or hunting. Children's contests fall largely in the category of games, though sports begin to be popular as children approach adolescence. Box 12–4 lists the common kinds of childhood games with a brief description of each.

As the child develops an interest in sports, he wants to acquire the play skills needed for successful performance. At first, play is largely individual and the child concentrates on playing a better game than any of the other players. Because of this egocentric interest, the child is not a good team player. Gradually, however, as he learns to cooperate with the other players, he derives more enjoyment from sports. By the time he reaches adolescence, the typical child is a good team player.

Values of Games and Sports.

Games and sports not only are pleasant forms of play but also have great value as socializing agents. From them the child learns how to get along with other children, to cooperate in different activities, to play the role of leader as well as follower, and to evaluate himself and his abilities realistically by comparing himself with his playmates.

The child who lacks social acceptance in a peer group must play games with family members if he wants to engage in this kind of play. While adults can teach him how to play a game, they usually fail to teach him how to be a good sport. Adults are inclined to allow a child advantages, while his contemporaries will not. DuBois (27) has said:

> *When young people do not participate in sports, the scales are heavily weighted against their successful social and emotional adjustment; they frequently are headed for trouble, because they have not had the opportunity to learn to win humbly, to lose gracefully, and endure physical discomfort to attain a goal. In short, they have not had the privilege of learning the discipline of good sportsmanship, so necessary for a happy adult life.*

Sex Differences in Games and Sports. In the preschool years, there is no real sex difference in interest in games or in the frequency with which members of the two sexes engage in different kinds of games. When a difference in proficiency exists, it is usually in favor of girls because their muscle coordination develops earlier. Boys play games with girls just as often as they play with boys.

Shortly before children enter first grade, sex differences in games begin to show up. Interest in games and success in games of all sorts now become less important to girls. As a result, boys begin to show greater proficiency than girls because they have a stronger motivation to engage in the practice essential to the development of skills.

Indoor games are more popular with girls. Most boys like indoor games only when they play for stakes, which add some excitement even though they are mere tokens. Girls, by contrast, rarely play for stakes. They enjoy a game for the fun of being with their friends and for the competition it offers (37, 60, 101).

In one area—cheating—sex differences are frequently noted. Just as boys cheat more in schoolwork than girls, so they cheat more in games. This will be covered in the discussion of moral development in Chapter 15.

Reading

Reading is a favorite form of amusement-play. It is sedentary or inactive play in which the enjoyment comes from the activity of another. The child reads when he is tired; when he lacks playmates because of geographic isolation, illness, or lack of social acceptance; or when he lacks interest in the play activities of his age-mates. Reading is most common in the afternoon or evening when the child is tired or

Box 12–4

KINDS OF CHILDHOOD GAMES

Mother Games

Simple games, played with the mother or mother substitute, appeal to the baby before he is a year old. These traditional games, passed down from one generation to another, include pat-a-cake, peekaboo, and pigs-to-market.

Individual Games

By the age of 5, the child plays games to test his skills rather than just to have fun. Play is individual, and competition is with his own past achievements. The child walks on street curbs, jumps down steps, hops on one foot, bounces balls, and plays jacks.

Neighborhood Games

While the child plays individual games, he is also interested in neighborhood games of the undefined-group type in which any number can play. They may be organized by an older person or invented on the spot. The rules are few and are often modified. Traditional games include tag, hide-and-seek, and cops-and-robbers.

Team Games

Team games begin to win interest between 8 and 10 years of age. They are highly organized and have strict rules and strong competition. At first, only two or three children play, but the number increases as skills improve and cooperation develops. Typical games are modifications of football, baseball, or track.

Indoor Games

Indoor games are less strenuous than outdoor games and are mainly played when children must stay indoors because of fatigue, illness, or bad weather. At first, they are played with parents or siblings, and later, with peers. Rules become stricter and competition keener as children grow older. Traditional games include cards, jacks, and guessing games.

cannot go outside and on Sundays and holidays when playmates are not readily available.

Age for age, *girls* read more than boys. Girls are more proficient in reading and, as a result, read with less effort than boys. Further, there is little prestige associated with active play for girls (8, 37). *Bright* children, at all ages, read more than those of lower intellectual levels. The less bright children find reading more like work than play (19, 110).

Children from the more favored *socioeconomic* groups spend more time reading than those from the less favored groups. This difference is not necessarily due to a difference in intellectual level. Children from the better socioeconomic groups have more reading material readily available in the home and they receive more encouragement to read for pleasure than do children from less favored homes (30, 109, 110).

PREFERRED THEMES IN CHILDREN'S READING

In spite of the popular belief that young children like highly imaginative stories, there is evidence that they prefer stories about things that "could happen." Stated in another way, they prefer stories that are sprinkled with a *bit* of unreality to those about what actually happened or those which are so far removed from their experiences that they cannot understand them (18, 30, 81).

Most young children prefer stories about familiar people and animals. They like the children's classics, such as *The Three Bears, Mother Goose,* and *Cinderella,* and modern books, such as *Winnie the Pooh* and *Mary Poppins.* By kindergarten age, they like humorous stories, dramas about Western life, and the comics. Their favorite characters are animals and children. They like these characters for their personal qualities or their humor. Since they are able to identify with animals, they derive great enjoyment from hearing about what they do (7, 13).

The young child is egocentric, and likes stories that center around himself. A story that tells how he digests his food or what makes him hot or cold has great fascination for him. If he can identify with the characters in a story, this increases his enjoyment of it.

After children begin school, cultural pressures influence their reading interests, and they read what is considered appropriate for members of their sex. Children from the middle and upper socioeconomic groups read what parents and teachers think appropriate, while children from the lower groups read what they wish, with a minimum of adult supervision (36, 109).

With intellectual growth and school experience, the child becomes more realistic. He regards fantasy as babyish or "phony." As a result, he loses interest in stories with animal characters because he can no longer identify with them.

Instead, his reading centers on adventure and violence, love and glamour, or educational materials. Which of these three major interests he will prefer depends partly on his age and reading ability, partly on what his friends read, and partly on his own personality pattern. A study of children's books with high and low circulation found that the most popular books were those with heroes the child could identify with because they had qualities he admired and would like to possess in his own life. Books with villains who had undesirable traits were far less popular (12).

A sex difference in reading interests becomes apparent in late childhood. Boys prefer books about inventions, athletics, and adventure, while girls show a preference for books relating to homelife, boarding school or college life, adventure stories written for boys, nature stories, and Bible stories. These reading interests are very strong among 13-year-olds, but few new interests develop. After sexual maturity, children, especially girls, enjoy stories dealing with romance and love (8, 59).

POPULAR READING MEDIA OF CHILDHOOD

Four media provide reading material for children: books, comics, newspapers, and magazines. For the average child, comics or books rank first in popularity and newspapers last, but there are marked age as well as individual differences. Comics, for example, tend to lose some of their appeal as childhood progresses, and books become more popular.

Books. The young child likes small books that he can handle easily; he likes large, brightly colored pictures of people, animals, and familiar household articles; and he likes a minimum of reading matter, preferably in large print which he can see easily without eyestrain. What reading matter there is must be in simple, understandable words and short sentences, dealing with people, animals, objects, or situations that are familiar to him.

As he grows older and can read some of the words printed in his books, he continues to like the illustrations just as he did when he was younger. Too much emphasis on description, whimsy, and scenes or customs that are foreign to his experience bore him, even though particular books may be rated high by adults. Typically, the child dislikes anxiety-producing elements. He likes happy endings (36). Babbitt (7) has said:

> *It does not work for every child's story, but perhaps it does apply to all that we remember longest and love best and will keep reading to our children and our children's children as a last remaining kind of oral history, a history of the essence of our own childhood. I am referring, of course, to The Happy Ending. Not, please, to a simple "happily ever after," or to the kind of contrived final sugar coating that seems tacked on primarily to spare the child any glimpse of what really would have happened had the author not been vigilant; not these, but to something which goes much deeper, something which turns a story ultimately toward hope rather than resignation.*

Newspapers and Magazines. As Schramm et al. have pointed out, "The newspaper is the last of the great media to which the child is introduced." This seldom happens before the age of 7 years (92). After the introduction, the child devotes more time to newspaper reading each year. As he approaches puberty, he often spends more time reading newspapers than books.

When children first begin to read newspapers, their main interest is the comic strips. Gradually, as a result of their studies and their discussions of current events in school they begin to read the news of the day, foreign news, political news, and even editorials (92).

Interest in magazine reading parallels interest in newspaper reading. At first, children merely look at the pictures. Later, they read some of the shorter stories, and last, the editorials and letters to the editor. At all ages, they prefer magazines with brightly colored ads and with stories and articles that are short, easy to read, and sex appropriate.

Boys show a greater interest in newspapers than in magazines, while the reverse is true of girls. In the newspapers, sports are the main interest for boys, and columns, for girls. *Bright* children prefer the "better" newspapers and magazines; those who are not so bright or who come from poorer homes prefer the tabloids and children's magazines or, as they grow older, the more sensational adult magazines. At all ages, bright children are more likely to read newspapers than the less bright (92, 93).

Comics. Comics are cartoon stories in which the story element is less important than the pictures. Most of the comics published today relate to adventure rather than comedy, and their appeal is principally emotional. Comics are "skewed toward reality." When the situation is real, the people are unreal; when the situation is unreal, the people are real.

The characters are occasionally humorous, but for the most part they are serious and are intent on dangerous adventure and noble deeds. To accomplish these ends, they use methods ranging from magic to violence. Good always triumphs. About 50 percent of the comics today have animal characters; many of these comics are humorous (98, 114).

The subject matter of the comics includes adventure, humor, romance and sex, animal antics, and detective stories. Some are based on literary classics or stories from the Bible. Approximately equal space is devoted to humor, sex, and crime.

Children today are literally surrounded by comics. They buy some of the comics they read and obtain others by swapping with their classmates and friends. Great prestige is associated with owning a large number of comics for swapping purposes.

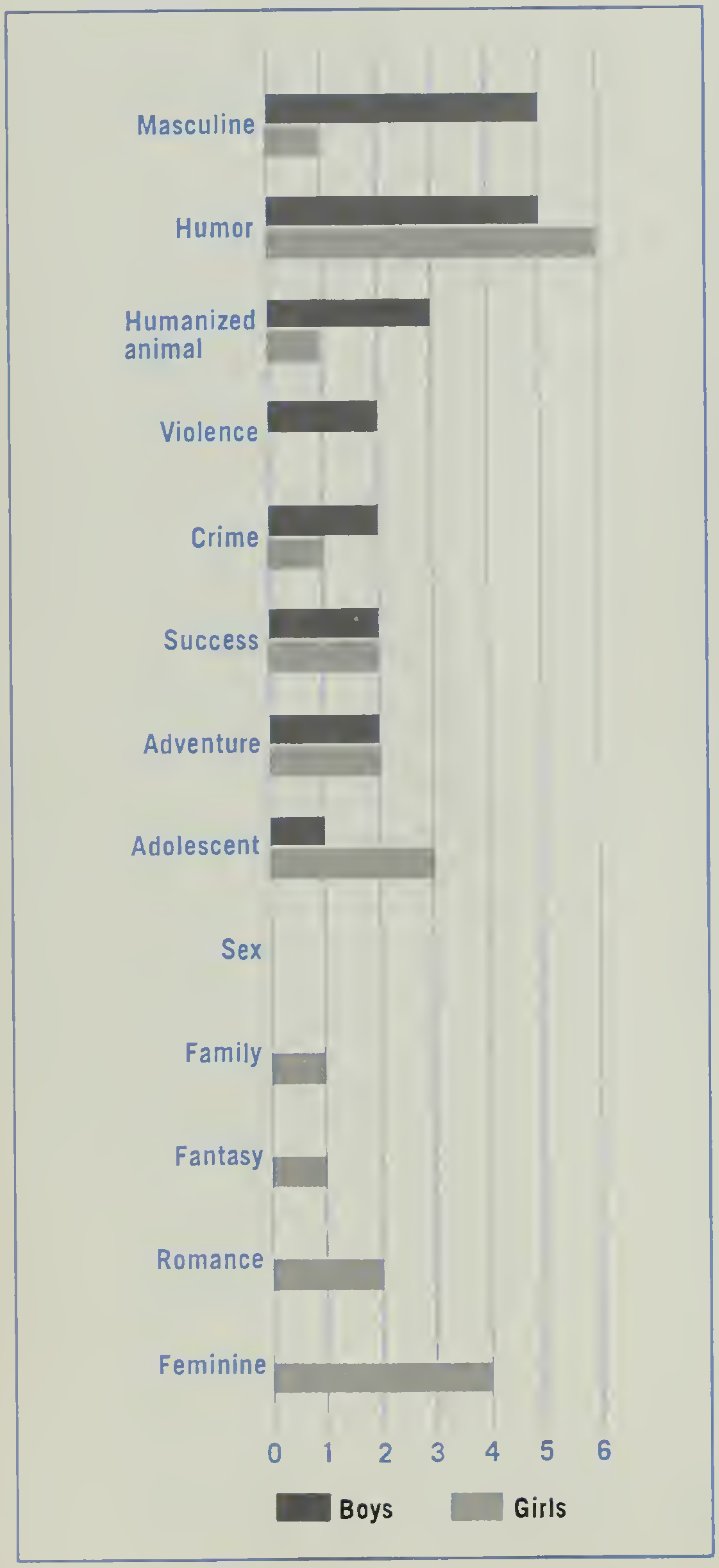
Early Interest in Comics. By the time children are 2 or 3 years old, they look at pictures in the comics. A year or so later, even before they can read or understand some of the words they hear, they ask to have the comics read to them. From then on, interest in this medium increases rapidly, reaching a peak during the sixth or seventh grade and then declining (17, 114).

The child's first interest in the newspaper is centered around the comics. Long before he cares about reading the news of the world, he has become a daily reader of the comic strips, and this interest persists even after he begins to read other parts of the newspaper. Boys and girls have different tastes in comics, and boys, at every age, read more comics than girls. The slow learner reads more comics and fewer books than the rapid learner, and he concentrates on certain kinds of comics (8, 110).

Favorite Comics. The appeal of various kinds of comics follows a predictable pattern. Among *preschoolers,* the favorites are those in which animals, such as Bugs Bunny and Mickey Mouse, dress and talk like human beings. In fact, however, preschool children like all comics, provided they contain no element of terror.

In *late childhood,* at the beginning of the hero-worship age, children like comics with heroes or heroines they can identify with. Butterworth and Thompson

Figure 12-3. Frequency with which characteristic "appeals" appear in the 10 most popular comic books for boys and girls. (Adapted from R. F. Butterworth and G. G. Thompson, Factors related to age-grade trends and sex differences in children's preferences for comic books, J. genet. Psychol., *1951,* **78**, *71-96. Used by permission.)*



write that, from the sixth grade on, boys prefer stories "written from a masculine standpoint, whose central characters find adventure through the mastery of danger," and which feature a good deal of crime and violence, sports and athletics, and humor (17).

Girls in the early grades like comics featuring women, children, and animals. They are less interested in adventure, mystery, and thrills than boys, and they show a greater interest in animal comics. The older girl prefers romance to adventure. She wants her comics to be "feminine," although some girls at this age like the typically "masculine" comics also. Commenting on the favorite comics of girls from the fifth grade on, Butterworth and Thompson state, "Girls show a preference for comic books that feature feminine characters and pursuits, typical adolescents, a certain element of romance, dating, etc., and all varieties of humor" (17). Figure 12-3 shows the kinds of comics that appeal to boys and girls at different ages.

Reasons for Interest in Comics. Children read comics for various reasons, but certain reasons are almost universal.

- Through identification with characters in the comics, the child has an excellent opportunity to gain insight into his own personal and emotional problems. This may help him to solve his problems.
- Comics appeal to the child's imagination and to his curiosity about the supernatural. As Podolsky has explained, comics dealing "with mystery, bloodshed, crime, and murder. . . pass the bounds of the physical, leave the intellectual, and play heavily on the emotional field" (82).
- Comics offer the child a temporary escape from the humdrum reality of the daily routine.
- Comics are easy to read. Even a poor reader can get the gist of their meaning from the pictures.
- Since comics are inexpensive, a child from a poor family can have some of his own.
- Comics are exciting, mysterious, and often humorous, and they provide the child a motivation to read, which many children's books do not.
- If in serial form, comics give the child something to look forward to.
- In the comics, the characters often do or say things the child does not dare, though he would like to. This provides a vicarious pleasure for him.

- The characters in comics often are brave, strong, and handsome or beautiful, thus giving boys and girls heroes and heroines to identify with.
- The art in comics is colorful and simple enough for the child to understand.

Evaluation of Comics. Many educators and parents oppose the reading of comics; others approve or at least condone it. Both sides present arguments to substantiate their point of view. Box 12–5 lists some of the most common arguments.

The pro and con arguments presented in the box indicate the lack of agreement on the effects of the comics. They have both good and bad features so far as the child's mental health, academic work, and personality development are concerned. Blakely has stated that to date there is "no justification for curtailing children's access to comic books" (10). As long as reading the comics is a favorite form of play among American children, any child who is not permitted to read them will be regarded as "different," and this can be very damaging psychologically.

By contrast, devoting an *unreasonable* portion of playtime to comics is not only unwise but the source of potential psychological harm. If the child *wants* to devote more time to comics than his age-mates do, this may be regarded as a danger signal of poor personal or social adjustment.

EVALUATION OF READING AS A FORM OF PLAY

Psychologically, reading is one of the healthiest forms of play. It encourages the child to become *self-sufficient* and to develop resources within himself to be able to enjoy his leisure time when playmates are unavailable. Such resources will be valuable throughout his life. When a child enjoys reading for fun, he is not only forming *healthy attitudes* toward reading that will carry over to his schoolwork, but he is acquiring reading *proficiency,* which will be an asset in all his studies.

Box 12–5

EVALUATION OF COMICS

Arguments in Favor of Comics

- The comics supply the child of limited reading ability with an enjoyable reading experience.
- Comics may be used to motivate the child to develop his reading skill.
- The educational attainment of the child who reads comics frequently is almost identical with that of one who reads them infrequently.
- The child is introduced to a wide vocabulary, many words of which he encounters in other reading.
- The comic book provides an excellent technique for disseminating propaganda, especially antiprejudice propaganda.
- The comics provide the child with a source of emotional catharsis for pent-up emotions.
- The child may identify with comic book characters who embody the qualities he admires.

Arguments against Comics

- The comics distract the child from more worthwhile literature.
- Since the pictures tell the story, the poor reader may make no effort to read the text.
- There is little or no progression of reading experience within the comics.
- The art, stories, and language of most comic strips are inferior.
- Material relating to sex, violence, and fear overstimulates the child.
- The comics keep the child from engaging in other forms of play.
- By portraying antisocial behavior, comics encourage aggressiveness and juvenile delinquency.
- The comics make real life seem dull and uninteresting.
- The comics stereotype people, and this encourages prejudice.

Reading, regardless of the media used, encourages *creativity.* This is true of all reading material, not of fantasy alone. The child who broadens his interests and acquires new knowledge through reading is building the foundations for his own creative activities. This will be discussed in more detail in the following chapter.

Each year, as the child grows older, he is confronted with more and more serious problems of social adjustment. Furthermore, he is expected to solve his problems with less parental and teacher help than he had when he was younger. Reading provides *insight into his own problems* and offers clues to how best to solve them. In their everyday lives, many children lack people they admire enough to want to identify with and use as a pattern for their own development. In reading, they find sources of *identification* which fit their needs and provide motivation in the molding of their personalities.

In spite of the benefits derived from reading, it should not be assumed that the more reading a child does, the greater the benefits. Too much play time devoted to reading indicates that the child, for one reason or another, gains too little satisfaction from active and other kinds of passive play to want to engage in them. It can, therefore, be regarded as a danger signal of poor personal and social adjustments.

Movies

Going to the movies is far less popular with children today than it was a decade or two ago. There are two major reasons: *First,* children get much the same sort of pleasure from watching television as from going to the movies, especially since many of the popular movies are shown on TV; and *second,* movies have become so expensive that many children cannot afford to attend even the "kiddie shows" without making great inroads upon their allowances.

This does not mean that going to the movies is no longer a form of amusement for American children. They do go to the movies—though less frequently than in the past—and they see movies on the television screen in their homes or in the homes of friends. Movies have the same appeal today as they did in the days when TV was not a part of every American home and children had to go to the theater to see them. In fact, watching movies, whether in a movie theater or on television is one of children's favorite amusements.

Interest in movies as a form of recreation develops later than many other play interests. Most preschoolers cannot understand enough of what is shown on the movie screen to be able to concentrate on it for an entire show, and thus they become bored and restless. This, of course, is not true of movies made especially for their age level.

Furthermore, as many movies have a "thrill" element involving shooting and noise, many preschoolers become frightened. Not realizing that it is only make-believe, they often shut their eyes and cry in fear. This lowers their interest in going to the kiddie shows at the neighborhood movie theaters and even in watching movies on television.

By the time children are 6 or 7 years old, they can concentrate for a longer time, especially when what they see or hear is amusing to them. They have a better understanding of what they are hearing and seeing and thus find it more interesting. In addition, older children know that a movie is only make-believe and are, therefore, less frightened by violent or aggressive scenes.

How much time older children spend watching movies on television or at the movie theaters depends more on the financial status of the family and the availability of suitable movies in their neighborhoods than on their interest. As going to the movies on Saturday is one of the favorite gang activities of both boys and girls in many communities, children who belong to gangs are likely to be more frequent and regular attendants than those who have no one to go with. Among older children, going to movies with parents or siblings or going alone merely advertises their unpopularity. Consequently, they prefer to satisfy their desire to see movies by watching them on television.

Movie Preferences. What the child sees on the screen, whether in a movie theater or on television, depends on what is available at the times he can watch. If there is a choice, the young child prefers comics and animated films, especially those with animals as the main characters. He can understand these, and they usually lack any element of terror.

For the older child, the thrill element of a film is its major appeal. Regardless of how the thrill is produced, he wants to see something that excites him and has an element of terror, violence, or suspense. Anything that offers excitement, adventure, or mystery appeals to him because it is in sharp contrast to his daily life.

It is for this reason that the older child often prefers movies to books, games, and sports (3, 4, 58).

During the preschool years, there are no *sex differences* in movie preferences. Boys as well as girls like comics and animated films and they usually prefer animal to human actors. Sex differences begin to appear around the age of 6 years and become more pronounced as children approach adolescence. These differences parallel the differences in reading interests.

Children who are *unhappy,* because of conditions in the home or elsewhere, are quite likely to become addicted to crime movies. They use movies as an escape in much the same way that adults use alcohol. As Podolsky has said, they "drown their unhappiness in artificial excitement, thus obtaining a slight measure of relief" (82).

Influence of Movies. Any form of play that has a strong appeal to children will, inevitably, affect their attitudes and behavior. Some of the ways movies influence children are given in Box 12-6.

How much influence the movies will have is determined by many factors, three of which are discussed below.

The Child Himself. What a child gets from looking at a movie depends on his needs and background. A child with low aggression is usually more aggressive after viewing a film with an aggressive theme. Seeing the action on the screen gives it a stamp of approval and encourages him to release the aggressiveness he has inhibited. The child who fears policemen because of the stereotype he has seen in the comics will be more intimidated by a policeman on the screen than a child who has had pleasant personal experiences with policemen.

What is Understood and Remembered. The more closely the picture relates to experiences the child has actually had, the greater the likelihood that he will remember it. A very exciting film tends to stifle the child's critical attitude and, hence, has a more pronounced influence on his behavior. A child with a low IQ retains less of what he sees on the screen, but he is also less critical and, consequently, more influenced than the child with a higher IQ.

Identification with Characters. When the child identifies closely with one of the characters on the screen, he shares, vicariously, the experiences of that character and this influences his behavior later. If the character is aggressive, for example, this tends to increase the child's aggressiveness. The more the child identifies with a character on the screen, the more he remembers of the picture and, in turn, the greater its influence on his attitudes and behavior.

Box 12-6

HOW MOVIES INFLUENCE CHILDREN

- Movies give the child pleasure by taking him into a new world of people and animals doing things that he cannot do.
- In the movies, the child finds an excitement not found in his everyday life, an excitement more vivid than what he gets from his reading, even from the comics.
- Ideas that can be used in other activities are derived from movies about cowboys, Indians, spacemen, and so on.
- Movies provide ideas about how to behave in social situations, and the child uses such information to increase his social acceptance.
- The child learns about the world in which he lives. Information gotten from movies is more vivid, meaningful, and longer remembered than information from books because it is presented in pictures and sound rather than in print with only an occasional illustration.
- Movies provide information about many different kinds of people—people with whom the child has little or no personal contact. Whether this will foster tolerance, liking, or prejudice will depend largely on how the people are presented on the screen.
- Moving pictures may have a pronounced emotional effect on the child. In the young child, this may be expressed in nightmares, daydreams, eating and sleeping problems, or nervous mannerisms. In the older child, the effects are much milder and less frequent because he realizes that what he sees on the screen is make-believe.
- Watching movies too long at one time may cause eyestrain and general fatigue. Horror movies are especially fatiguing both physically and emotionally.

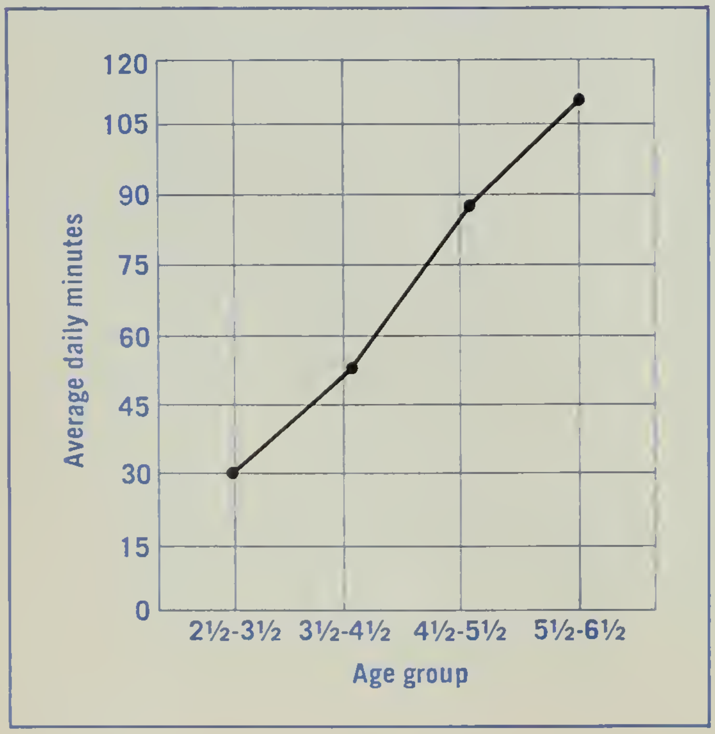
Radio

Before the advent of television, radio was an even more popular amusement for children than movies. Now, radio has lost much of its appeal for young children, though many adolescents and near adolescents find that radio satisfies their play needs better than television.

Interest in listening to the radio begins earlier than interest in movies. The baby enjoys hearing music and hearing others speak, even though he cannot understand them. Few children, however, show much interest in radio until they are 3 years old. From then on, radio listening increases.

The time spent listening to radio varies greatly. Some children spend several hours a day—more than is spent playing with other children or reading: others spend almost no time on radio listening. *Boys* generally listen to the radio more than girls because they find it less taxing than reading which, as was noted earlier, girls are more proficient at, on the whole. Children of high intellectual levels listen less than those of lower, and better *students* listen less than poorer students. *Rural* children, who have fewer opportunities for play activities involving other children, spend more time listening to the radio than urban children. *Well-adjusted* children, it has been reported, listen to the radio less than the poorly adjusted, and their program preferences are different (3, 37, 68, 114).

Figure 12-4. Time spent daily watching television by children of different ages. (Adapted from H. R. Marshall, Relations between home experiences and children's use of language in play interactions with peers, Psychol. Monogr., *1961,* **75**, *No. 5. Used by permission.)*



Program Preferences. In general, program preferences at different ages follow preferences in reading and movies. The preschool child listens to children's programs which deal mainly with animals and familiar people doing familiar things. He also likes simple music, whether vocal or instrumental.

By the age of 6 years, the child begins to lose interest in children's programs; now he wants programs that are more entertaining. The young school child likes plays dealing with adventure, mystery, crime, and comedy, and he likes popular dance music.

Quiz shows appeal to the older child, as do dramas of domestic life, slapstick comedies, sports reports, and occasionally the news of the day. For the most part, the older child dislikes programs of a serious nature, such as classical music and educational, religious, or historical talks.

Boys have a narrower range of program preferences than girls. They prefer programs emphasizing sports, adventure, mystery, comedy, and crime, while girls like many kinds of dramatic programs, quiz shows, popular music, and comedy shows (37, 69, 86).

Effects of Radio Listening. There is a tendency to overestimate the undesirable effects of radio listening and to underemphasize the educational and other advantages. Without question, however, the amount of time spent listening and the kind of program habitually listened to are important determinants (68, 86, 115).

Favorable Effects. The favorable effects of radio listening have been listed as follows: It offers the child a form of entertainment within the home and thus keeps him with the family; it increases the child's knowledge about history, current events, geography, literature, and many other subjects, and supplements what he learns in school; it improves his speech by increasing his vocabulary, improving his grammar, and giving him a good model of diction; it encourages him to read to supplement his knowledge of subjects he has heard about over the air; and it offers him models with whom he can identify, thus acting as an incentive to self-improvement (68, 114).

Unfavorable Effects. Critics of radio listening emphasize the harmful effects. These are most pronounced when the child concentrates on programs of violence, crime, and mystery. Terrifying programs may affect the general physical condition of the child by producing nervous tension, nightmares, loss of sleep, and poor appetite.

The child who spends much of his time listening to the radio gets too little exercise for normal development and a healthy physical condition. His schoolwork may suffer because he does not give enough time to his studies and does not concentrate when he is studying. As with any other form of amusement, too much time spent listening to the radio may be regarded as a danger signal of poor personal and social adjustment (69, 86, 115).

Television

Television combines the appealing features of the movies and radio and is one of the most popular amusements during the childhood years. Witty has called television the "electronic Pied Piper"—a label suggesting that it literally lures children away from other forms of play (114).

Many babies are introduced to television while they are still in their cribs. For them, television is a built-in baby sitter because it keeps them amused when no one is available to act in this role (93). For the preschool child and even the older child, television watching is an *added* play activity, not a substitute for active play and other forms of passive play. But for many children it is more popular and more consuming of their play time than all other play activities.

The appeal of television varies markedly from child to child and from age to age in the same child. Some of the factors responsible for these variations are listed and discussed briefly in Box 12-7.

Time Spent on Television. For far too many children, the time spent on television watching is out of all proportion to the amount of time devoted to other forms of play. As Witty has said, television is "children's most time-consuming activity" (114). It has been estimated that, from the age of 3 years on, the child spends from one-sixth to one-seventh of his waking hours on television watching. From 3 years until he enters school at 6, there is a sharp increase in amount of time spent on television. This is shown in Figure 12-4.

Studies reveal that the average school child spends from 20 to 21 hours a week before the television screen, with a decrease of approximately 3 hours in the weekly average during the summer months (114).

The amount of time a child spends watching television is not, however, foolproof evidence of his interest or lack of interest in it. This time may be regulated by family rules, by the demands of schoolwork or home duties, by whether the family owns one television set or two, or none at all, by how many family members there are to share the watching time, and many other conditions.

Box 12-7

FACTORS INFLUENCING CHILDREN'S INTEREST IN TV

- *Age.* Preschoolers show a greater interest in television than school-age children, who have broader play interests and more playmates, and are more critical of what they see on TV.
- *Sex.* Age for age, boys spend more time watching television than girls. Boys find reading more difficult than girls; also, television shows often concentrate on the thrills that boys like.
- *Intelligence.* At all ages, bright children derive less satisfaction from television than their less bright age-mates, and they begin to lose interest in it sooner.
- *Socioeconomic status.* TV is more popular with children of the lower socioeconomic groups than with those of the higher. This becomes more true as childhood progresses, in part because children in the lower groups have fewer opportunities for other forms of play.
- *Academic achievements.* Age for age, good students are less interested in television than poor students. They often regard it as a waste of time to watch the programs that are available.
- *Social acceptance.* There is a close relationship between the amount of social acceptance the child enjoys and his interest in TV. The more accepted he is, the less interest he has in television, and vice versa.
- *Personality.* Television appeals more to children who are poorly adjusted, both personally and socially, than to those who are well adjusted. Self-bound children watch TV more than those who are outer-bound.

Program Preferences. When children first start watching television, they watch any program available at the time. Soon, however, they begin to show definite program preferences. Preschool children like dramatizations involving animals and familiar people, music, cartoons, and simple comedy. First- and second-grade children like puppet shows, cowboy movies, harmless mysteries, humor, family-life situations, and prize-presenting programs. By the third and fourth grades, children are interested in imaginative programs, such as those about rockets and spaceships, and in variety shows, mystery and detective stories, dramatic plays, and music. Fifth- and sixth-grade children continue to like these programs, but they also like presentations dealing with science and feats of skill. Stories, comedy, cartoons, and music are popular at every age, while educational programs tend to be unpopular, especially among children with lower intellectual levels (93, 94, 109, 114). Only if the educational program is presented in an entertaining way, like Sesame Street, will it have as strong appeal to children of all intellectual levels as programs that concentrate on entertainment (107).

Preference for a particular program is often based on the appeal of its hero or heroine. Boys like their heroes to be typically masculine in appearance, aggressive in behavior, and brave in the face of danger. Girls care little for aggressive heroes, but they like them to be handsome and courteous in their treatment of women. Older boys have a somewhat scornful attitude toward *all* heroines on the screen and tend to make fun of them, as they do of girls in real life during the sex-antagonism stage of late childhood. Girls, on the other hand, like almost all heroines who are attractive and well dressed, and tend to identify with them (8, 61).

Program preferences of young children are greatly influenced by guidance and encouragement from parents. Later, teachers help them to choose the programs they consider most interesting as well as most wholesome and informative. Among older children, program preferences are influenced more by peers than by parents or teachers. Schramm (93) has written:

> *We have discovered a very interesting, although hardly surprising, thing about young children's media habits. Up to about the age of ten, they are very closely related to their parents' media habits. In fact, if you can tell me one fact—the father's education—I can predict with some confidence what kind of media patterns his children would have; and if you tell me what kind of television the parents watch, what music they hear, and so on, then I could predict with almost complete confidence what use their children will make of the media. After the age of ten . . . the influence of the parents tend to be diluted by the influence of the peer group.*

Popular Concern about Television's Effects. Ever since the arrival of television, parents, educators, law-enforcing officers, and the clergy have shown a great concern about its effects on the child. Concern has ranged from the inroads television makes on reading and other leisure-time activities to its effect on moral behavior and its relationship to the increase in juvenile delinquency. *Time* Magazine has summed up this attitude: "From the moment it was old enough to earn money, U. S. television has been squandering the country's greatest natural resource: the young audience" (107).

The blame has not been placed on television per se but rather on the kind of programming for children. Of the typical children's program, *Time* (107) said:

> *Vulgarity and violence dominate children's video: mice endlessly bombing cats, family "comedies" with dumb daddies, mischievous kids and dogs who wag their way into your heart, all accompanied by commercials as intense as the Chinese water torture. ("Be the first on your block . . . Ask Mommy to get some . . . New! Big! Free! Wow! Wow!").*

This concern is not new; every time a new medium of mass communication is introduced, the older generation blames the new medium for all the defects it sees in the young. Movies, radio, and comics have all been blamed for the rise in juvenile delinquency; now it is television's turn to take the blame. In each case, the concern has given rise to research studies to discover just how great an influence that particular medium had on children's attitudes and behavior. Some of the studies of television have concluded that it is a good influence, others, that it is damaging. As Witty (114) has pointed out, in his discussion of the early reactions to the effects of television:

> *Various attitudes were soon expressed concerning children's preoccupation with this newest form of mass communication. Some writers emphasized its educational values and potentialities, while others stressed the inferior quality of programs both artistically and educationally. And many accusations were leveled at television by parents and teachers. Some parents asserted that TV was converting children into a race of spectators.*

> *Others reported that children were becoming aggressive and irritable as a result of excessive televiewing. Some elementary-school teachers insisted that they found greater difficulty in interesting children in school subjects. . . . On the other hand, some parents cited improved family relationships and companionships as a result of TV. Moreover, some teachers indicated that TV was providing the motivation for worthwhile accomplishment in school.*

Without question, when a child spends one-sixth or more of his waking time in one activity, it will have some influence on his actions and attitudes. Furthermore, it is certain to contribute to the shaping of his personal and moral values. Whether the influence is immediate or long-term or both, however, will depend not so much upon the programs the child sees as upon how the child reacts to the programs and how they influence his attitudes and values. Wertham has warned: "A child's mind is like a bank. Whatever you put in you get back ten years later with interest" (111).

How television affects a child, therefore, depends also on what kind of child he is as a result of other experiences. Schramm (93), from his study of the influence of television on over six thousand children, has stressed this factor as an important determinant of the effect of television:

> *More important than what television brings to the child is what the child brings to television. And this is our responsibility. What kind of child are we sending to television? . . . If we use television as a baby sitter, at the cost of other human contacts, we are obviously remiss. If we do not introduce our children to books, simply because television is so easily available, then we are being foolish. If we do not help our children to build up healthy contacts with other humans their own age, simply because television "keeps them at home," then we are truly doing them an unkindness.*

Reported Effects of Television. The many reported effects of television watching justify a critical analysis. Until further information is available, however, it is impossible to conclude how helpful or how damaging television is and whether the effects—good or bad—are temporary or permanent. There is almost unanimous agreement, however, on one point: The well-adjusted child is less likely to be adversely affected, either temporarily or permanently, than the poorly adjusted child, and the healthy child less than the unhealthy.

Of the many effects of television watching that have been reported, the ones discussed below have received the most attention.

Physical Effects. The arguments against television claim that it *interferes with a regular schedule of eating and sleeping.* A child is likely to delay his meal to watch a program or to eat while watching it, with the result that he does not chew his food properly. Many obese children are avid television watchers because they are unable to engage in the strenuous play of their age-mates; eating snacks while watching television merely increases the problem (61, 93). Interference with sleep is even more serious than interference with eating. Children who stay up beyond their usual bedtime to watch television get too little sleep (93, 114). Podolsky (82) has explained the "tired child syndrome" which results from too much television watching:

> *There is a natural tendency of the child's mind to continue turning over throughout the night what he has seen or heard before going to sleep. There is a deepening of impressions the next day by retelling and re-enacting these things during play-time. There is a potent tendency in children to vicarious participation in plots seen or heard, so that in recollection or dreams, the child substitutes himself and family for the victim or victims, thus intensifying unwholesome emotional reactions, often to a state of fearful struggle against a terrifying threat to the safety or existence of himself as well as members of his family.*

Effects on Other Forms of Play. Television watching always cuts into the time available for other activities, especially out-of-door play and play with other children. The child is deprived of the healthful exercise and emotional release that such play provides. He is deprived also of the learning experiences needed for good social adjustment. Too much time spent on television thus results in an unbalanced play program, with little time devoted to creative play or other forms of amusement (92, 114).

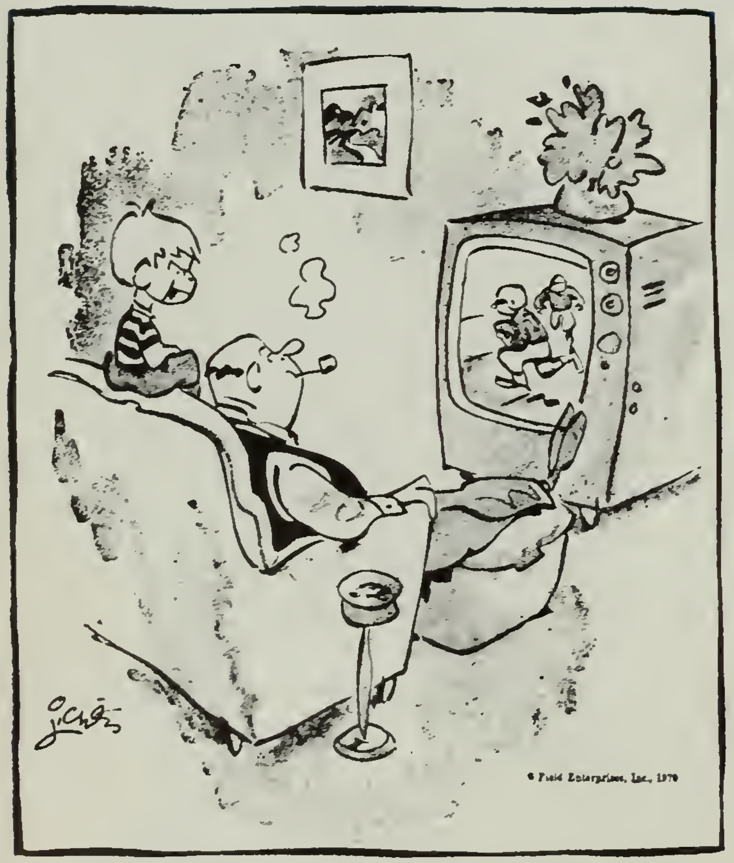
Effects on Schoolwork. Many students spend more time on television than on their studies. This is certain to have some effect on the child, even though the television time might not have been spent studying, especially if the child is not interested in school or is not motivated to do good work.

As children grow older and as the novelty of television wears off, television watching interferes less with their studies. Among better students and those who aspire to continue their education after high school, television seldom has a detrimental effect on schoolwork. Ridder (87) concluded from his study:

> *After careful examination and comparison of the grades received in English, social studies, and mathematics, and the total amount of time spent in viewing television, . . . it was discovered that there was no significant relationship between academic achievement and the total number of hours spent viewing television.*

One argument sometimes given in favor of television watching is that it helps children increase their vocabularies and that this, in turn, aids their reading. Studies have shown, however, that the increase in vocabulary size is not great enough to justify the time spent on watching, nor does it have any appreciable effect on the child's reading ability (87, 114). On the other hand, some children are motivated to follow up what they see on the television screen and thus fill gaps in their school curriculum. They read material they otherwise would not read—material which is often not part of their schoolwork (114).

Figure 12–5. A commentary upon one effect of television on family relationships. (Adapted from Lichty, "Grin and Bear It." The Philadelphia Evening Bulletin, *Publishers-Hall Syndicate, Dec. 5, 1970. Used by permission.)*



"Instead of watching TV all day, Pop, you could be taking me somewhere and giving me happy childhood recollections!"

A more serious aspect of the problem is that television presents material in such an exciting and vivid way that school books can hardly compete with it for the child's interest and attention. Many avid television watchers become so addicted to this excitement that they find lessons and school books boring (93, 117).

Effects on Family Activities. Within the home, television watching produces a closer physical proximity of family members, but it often restricts social interaction among them. It limits conversation and interrupts other play activities. The father who spends much of his time at home before the television screen, for example, cuts himself off from other play activities involving his wife and children. How this affects family relationships is illustrated in Figure 12–5.

It has been found, however, that television watching stimulates new family interests, provides topics for family conversation, and widens the circle of family friends. It encourages family members to stay at home and, in some circumstances, to have more guests than they would have were it not for this ready-made form of entertainment (5, 114).

Television's most damaging effect on family life comes when parents use TV as a "pacifier" for their children in place of discipline. If children become troublesome, they are sent to watch television instead of being appropriately disciplined. As a result, children quickly learn that they can break rules and not have to pay a penalty. This problem will be discussed in Chapter 15, Moral Development.

Effects on Attitudes. What a child sees on the television screen is so real that attitudes formed while viewing a program are likely to be transferred to real-life situations. In a study of the effects of television programs on children's concepts of, and attitudes toward, law enforcement, it was found that children tended to believe that sheriffs are dishonest, that criminals are treated "mean," that it is all right to "beat up" criminals, that it is all right for police to be dishonest in order to catch criminals, and that criminals are "smart" (94).

Characters in television dramas are usually presented as stereotypes and the child comes to think of *all* people belonging to a given group as having the same qualities as the characters seen on the television screen. They think, for example, that *all* teachers are like the teacher in a television show or that *all* mothers or fathers should be like those on the television screen. This influences their attitudes toward *their* teachers and *their* parents, often unfavorably, as will be discussed in later chapters.

Effects on Values. A constant television diet of crime, torture, and cruelty may, in time, blunt the child's sensitivities and encourage the development of values that are not in keeping with those held by the majority of the social group. As Wertham has stated, the child may develop into a "violence worshipper" who believes that "brutality is an expedient regulator in all social relationships" (111).

How constant a television diet of violence the American child is exposed to was emphasized by a 1968 study of major network programs. This study reported 84 killings in 85½ hours of programming in the prime evening hours and on Saturday mornings. The most violent evening hours were between 7:30 and 9:00 when children are most likely to be watching television (76). Children exposed to this diet of violence are, according to Witty, likely to accept and condone such behavior as an almost normal pattern of life (114).

Most adults realize that TV programs are make-believe and are presented because of the excitement they provide. But children are less critical than adults; they take what they see as realism, not fantasy. Furthermore, they often misinterpret what they see on the screen, and so even a harmless program can be damaging unless its true meaning is explained.

Effects on Behavior. After seeing television programs that emphasize aggressive patterns of behavior, the child is primed to carry these patterns into his other play activities and social contacts. Many forms of problem behavior in the home and school are based on behavior patterns the child has viewed on the screen (77, 97). Since the child is a natural imitator, he feels that what has the stamp of approval of a television program must be an accepted way for him to behave. The sharp increase in juvenile delinquency has often been attributed to the crime and violence that the children were subjected to on the television screen in their early years (32, 41).

Studies of behavior-problem children and of young delinquents reveal that television per se was not responsible for their antisocial behavior. In most cases, such children had poor relationships with their families, they experienced social rejection by their peers, and they did poor work in school. There is little doubt, however, that violence on the screen contributed to their antisocial behavior by giving such behavior the approval that comes when an aggressive hero is glorified (32, 41).

Law-abiding heroes are less glamorous than those who win attention by violence, but they, too, serve as models for children to identify with and imitate. If they are attractive looking and win social approval for their acts, the child will imitate them, just as he will the "bad" hero. Unfortunately, too few programs have "good" heroes, and the child, in his search for a hero to identify with, is likely to imitate the "bad" one.

Effects on Beliefs. Many children believe that anything said on television is true and that the television announcer knows more about everything than parents, teachers, or doctors. They urge their mothers to buy certain cereal because they believe it will make them into a great athlete or a beauty queen. They insist upon eating the cereal, regardless of its nutritional value, because the claims on television are so convincing (115). If this attitude becomes habitual, it will not only permanently influence buying habits, but of far greater harm, lead to a *general gullibility*. The person so affected is likely to accept uncritically whatever anyone in a position of prominence says.

In Figure 12–6 are shown some of the generally beneficial and detrimental effects of television watching on children. Note that the scale is more heavily tipped to the side of detrimental effects. This does not mean that *all* children are psychologically damaged by television watching or that the beneficial effects are always outweighed by the detrimental.

Minimizing the Harmful Effects of Television. The brief summary of arguments for and against television watching shows that the consensus is that television tends to contribute less that is beneficial and more that is harmful to the child's development than other forms of play. It is clear that a child needs more direction and control in this area of play than in any other, even in the reading of comics. But it is also clear that this direction and control are often lacking. If the themes and pictures in comics are harmful, parents and teachers try to keep them out of the child's reach. Social pressure in many communities has forced merchants to remove harmful comics from their shelves. Unfortunately, far too many parents show little concern about the quality of television their children watch. They *encourage* their children to watch when they are tired or fretful, regardless of what is on. Since many parents believe that television has an educational value, they permit children of all ages to spend more time watching than is good for them. Parents in the lower socioeconomic groups are more permissive about television watching than those in the middle and upper groups (11, 114).

To avoid much of the harm that can come from television watching, Abraham Ribicoff, former Secretary of the Department of Health, Education, and Welfare, has offered the following advice: "As a child watches what he is permitted to watch and listens to what to what he is permitted to listen to, parents must learn to get tough with themselves and their children, as well as with the television industry. . . . If he [the youngster] is permitted to sit like a vegetable, pursuing moronic murders and ceaseless crimes, he suffers, and his parents do too—in the end" (75).

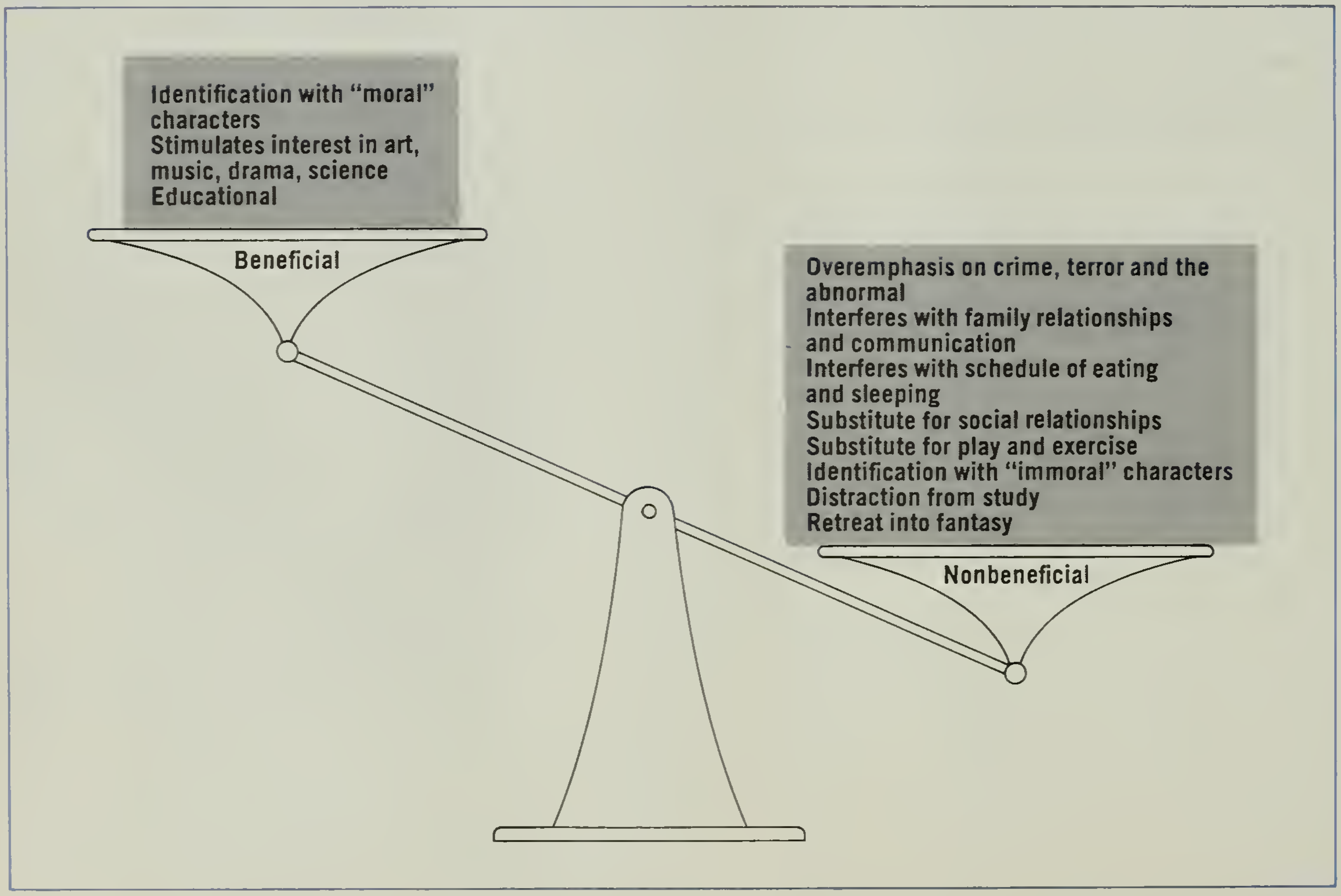
Witty (114) has emphasized these same points:

> *There are, of course, at present many mediocre TV programs. But there are also occasional presentations of beauty and high merit. It is the responsibility of both parents and teachers to make maximum use of such offerings. In addition, they should try to lead pupils to choose programs with greater discrimination, and to associate them with other worthwhile activities. They should also encourage the production of a wider range of suitable programs for children. Superior children's programs are at present few indeed.*

What has been said here does not mean that children should be deprived of the benefits that can come from this form of play—certainly it has not been proved that the detrimental effects of TV *always* outweigh the beneficial. As Witty has stressed, "Research workers should extend and improve their studies in an effort to ascertain how greater benefits can be realized from this universally appealing medium" (114).

Direction and guidance are vital if the child is to develop wholesome concepts about himself, about people, and about life in general and if he is to learn a moral code that will be in keeping with that approved by society. Long before television was dreamed of, Plato stressed the importance of guidance: "And shall we just carelessly allow children to hear any

Figure 12-6. Scale of generally beneficial and detrimental television watching.


Identification with "moral" characters
Stimulates interest in art, music, drama, science
Educational
Beneficial
Overemphasis on crime, terror and the abnormal
Interferes with family relationships and communication
Interferes with schedule of eating and sleeping
Substitute for social relationships
Substitute for play and exercise
Identification with "immoral" characters
Distraction from study
Retreat into fantasy
Nonbeneficial

casual tales which may be devised by casual persons, and to receive in their minds ideas for the most part the very opposite of those which we should wish them to have when they are grown up?"

Satisfactions and Dissatisfactions from Play

Not all children can be expected to derive satisfaction from the same forms of play. Nor do children derive satisfaction from the same play at different periods. Children differ in intelligence, interests, and many other ways, and they should have the kind of play that will fit their needs. Whether a particular play activity gives enjoyment and, at the same time, is socially approved will depend partly upon the individual child and partly upon the alternative activities available to him.

A child might derive more satisfaction from playing as a member of a team than from watching television or reading a book, but if he is not acceptable to the team members, he will be deprived of the opportunity to engage in team play. Under such conditions, he must then substitute a form of play that is available and derive what satisfaction he can from it. If it fails to meet his needs, he will then search for another substitute, and another, until he finds the one that gives him the most satisfaction.

This is well illustrated in play that is considered sex appropriate. A girl might prefer football to dolls, but if the boys will not accept her as a member of their team, she must play the games that are available to her or not play at all. A boy is faced with the same dilemma. He either plays the way the social group expects him to play whether he enjoys it or not, or faces social disapproval for engaging in play that he enjoys but is scorned by the group.

The important point to keep in mind when analyzing differences in play is not that children play differently and that their play varies from one age to another, but rather that *many of their play activities are substitutes for the kinds of play they would prefer if they were free to choose.* Many children, unfortunately never find substitutes that give them the satisfaction they crave from play. Furthermore, the substitutes may be harmful to them, either physically or psychologically, or harmful to the social group. The child who satisfies his need for excitement by watching television or reading comics, for example, would be better off if he could satisfy it as he would like to in competitive sports with the peer group.

On the positive side, this suggests that even our present-day emphasis on providing play space and play equipment for children is not enough. If the use of this space and equipment is to bring the desired results, positive steps must be taken to provide every child the opportunity to *play in a way that will meet his personal needs* and thus eliminate his having to find substitute forms which are less beneficial, give him less satisfaction, or are socially disapproved.

This problem becomes especially serious in the latter part of childhood, when delinquent behavior begins to appear. Many children who become juvenile delinquents do so because their forms of play are not acceptable to the social group. The child who makes *good social adjustments* finds play activities that meet his needs and also win the approval of the social group. By contrast, the child who makes *poor social adjustments* plays in a way that gives him little satisfaction, though it may win social approval, or in a way which is harmful to him or to the social group but does give him satisfaction. *The crux of the play problem is thus closely related to the problem of social adjustments; if the latter can be solved, the former will solve itself.*

Highlights of Chapter 12

1. Play, which may be active or passive, differs from work in that it is not goal-oriented.

2. The major values of play to the child's development are physical, therapeutic, educational, provision of opportunities for creativity, self-insight, social, and moral.

3. Children's play is influenced by tradition, it follows a predictable pattern, and it becomes less active and time-consuming and more formal and sex appropriate with advancing age.

4. In spite of variations in play due to health, sex, motor development, socioeconomic status, play space, and equipment, certain patterns of play are almost universal among American children.

5. The earliest forms of play are mainly solitary, free, and spontaneous, with no rules and regulations.

6. Dramatic play, constructive play, and daydreaming are the most creative forms of childhood play.

7. Collecting and music are play activities that are

more popular with girls than boys, while games and sports are more popular with boys.

8. Books and comics are the most popular leisure-time reading materials in childhood.

9. The most popular themes in movies and television are similar to those preferred in comics, and these differ for the two sexes and for children of different intellectual levels.

10. Radio listening has less appeal for younger than for older children, while the reverse is true for TV watching.

11. There is little scientific evidence that comics, movies, radio, or television are as psychologically damaging to the child as they are often claimed to be. There is substantial evidence that such forms of entertainment can be psychologically beneficial if they are suited to the child's age and to his level of development.

12. The degree of satisfaction the child derives from play activities depends on how well the play activities available to him meet his personal and social needs.

Bibliography

1. Albert, R. S.: The role of mass media and the effect of aggressive film content upon children's aggressive responses and identification choices. *Genet. Psychol. Monogr.*, 1957, **55,** 221-285.
2. Ames, L. B.: Children's stories. *Genet. Psychol. Monogr.*, 1966, **73,** 337-396.
3. Anast, P.: Personality determinants of mass media preferences. *Journalism Quart.*, 1966, **43,** 729-732.
4. Anast, P.: Differential movie appeals as correlates of attendance. *Journalism Quart.*, 1967, **44,** 86-90.
5. Appell, C. T.: Television's impact upon middle-class family life. *Teachers Coll. Rec.*, 1960, **61,** 265-274.
6. Axline, V. M.: Observing children at play. *Teachers Coll. Rec.*, 1951, **52,** 358-363.
7. Babbitt, N.: Happy endings? Of course, and also joy. *The New York Times,* Nov. 8, 1970.
8. Bailyn, L.: Mass media and children: A study of exposure habits and cognitive effects. *Psychol. Monogr.*, 1959, **73,** no. 1.
9. Bandura, A.: What TV violence can do to your child. *Look* Magazine, Oct. 22, 1963, pp. 46-48, 52.
10. Blakely, W. P.: A study of seventh grade children's reading of comic books as related to other variables. *J. genet. Psychol.*, 1958, **93,** 291-301.
11. Blood, R. O.: Social class and family control of television viewing. *Merrill-Palmer Quart.*, 1961, **7,** 205-222.
12. Bloomer, R. H.: Characteristics of portrayal and conflict and children's attraction to books. *Psychol. Rep.*, 1968, **23,** 99-106.
13. Boyd, N. A., and G. Mandler: Children's responses to human and animal stories and pictures. *J. consult. Psychol.*, 1955, **19,** 367-371.
14. Breckenridge, M. E., and E. L. Vincent: *Child Development,* 5th ed. Philadelphia: Saunders, 1965.
15. Brownman, M. T., and M. C. Templin: Stories for younger children in 1927-1929 and in 1952-1955. *Elem. Sch. J.*, 1959, **59,** 324-327.
16. Burgers, J. M.: Curiosity and play: Basic factors in the development of life. *Science,* 1966, **154,** 1680-1681.
17. Butterworth, R. F., and G. G. Thompson: Factors related to age-grade trends and sex differences in children's preferences for comic books. *J. genet. Psychol.*, 1951, **78,** 71-96.
18. Cappa, D.: Types of story books enjoyed by kindergarten children. *J. educ. Res.*, 1956, **49,** 555-557.
19. Carsley, J. D.: The interests of children (ages 10-11) in books. *Brit. J. educ. Psychol.*, 1957, **27,** 13-23.
20. Cianciolo, P. J.: Children's literature can affect coping behavior. *Personnel Guid. J.*, 1965, **43,** 897-903.
21. Coleman, J. S.: Athletics in high school. *Ann. Amer. Acad. pol. soc. Sci.*, 1961, **338,** 33-43.
22. Collier, M. J., and E. L. Gaier: The hero in the preferred childhood stories of college men. *Amer. Imago,* 1959, **16,** 177-194.
23. DeFleur, M. L.: Mass communication and social change. *Soc. Forces,* 1966, **44,** 314-326.
24. DeLucia, L. A.: The toy preference test: A measure of sex role identification. *Child Develpm.*, 1963, **34,** 107-117.
25. Dennis, W.: The human figure drawings of Bedouins. *J. soc. Psychol.*, 1960, **52,** 209-219.
26. Dittrichova, J., and V. Lapáčková: Development of the waking state in the young infant. *Child Develpm.*, 1964, **35,** 365-370.
27. DuBois, F. S.: The security of discipline. *Ment. Hyg., N. Y.*, 1952, **36,** 353-372.
28. Eifermann, R. R.: Level of children's play as expressed in group size. *Brit. J. educ. Psychol.*, 1970, **40,** 161-170.
29. Elkin, F.: The psychological appeal of the Hollywood western. *J. educ. Sociol.*, 1950, **24,** 72-86.
30. Emans, R.: What do children in the inner city like to read? *Elem. Sch. J.*, 1968, **69,** 118-122.
31. Emery, F. E.: Psychological effects of the Western film: A study in television viewing. *Hum. Relat.*, 1959, **12,** 215-232.

32. Eron, L. D.: Relationship of TV viewing habits and aggressive behavior in children. *J. abnorm. soc. Psychol.,* 1963, **67,** 193–196.

33. Fagot, B. I., and G. R. Patterson: An in vivo analysis of reinforcing contingencies for sex-role behaviors in the preschool child. *Develpm. Psychol.,* 1969, **1,** 563–568.

34. Fingarette, H.: All work and no play. *Humanitas,* 1969, **5,** 5–19.

35. Fisher, R. L.: Preferences of different age and socioeconomic groups in instrumental musical situations. *J. soc. Psychol.,* 1951, **33,** 147–152.

36. Gaier, E. L., and M. J. Collier: The latency-stage story preferences of American and Finnish children. *Child Develpm.,* 1960, **31,** 431–451.

37. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. *Genet. Psychol. Monogr.,* 1968, **77,** 169–299.

38. Goldberg, S., and M. Lewis: Play behavior in the year-old infant: Early sex differences. *Child Develpm.,* 1969, **40,** 21-31.

39. Gratton, C.: Summaries of selected subject bibliography on personality and play. *Humanitas,* 1959, **5,** 111–119.

40. Greenacre, P.: Play in relation to creative imagination. *Psychoanalytic Study of the Child,* 1959, **14,** 61–80.

41. Guitar, M. A.: TV violence: The kids react. *The New York Times,* Dec. 27, 1964.

42. Hartley, R. E., L. K. Frank, and R. M. Goldensen: *Understanding children's play.* New York: Columbia, 1952.

43. Hartup, W. W., S. G. Moore, and G. Sager: Avoidance of inappropriate sex-typing by young children. *J. consult. Psychol.,* 1963, **27,** 467–473.

44. Havighurst, R. J.: The leisure activities of the middle-aged. *Amer. J. Sociol.,* 1957, **63,** 152–162.

45. Helson, R.: Childhood interest clusters related to creativity in women. *J. consult. Psychol.,* 1965, **29,** 352–361.

46. Helson, R.: Sex differences in creative style. *J. Pers.,* 1967, **35,** 214–233.

47. Herron, R., and B. Sutton-Smith: *Child's play.* New York: Wiley, 1971.

48. Hess, R. D., and H. Goldman: Parents' views of the effect of television on their children. *Child Develpm.,* 1962, **33,** 411–426.

49. Hess, R. D., and V. C. Shipman: Early experience and the socialization of cognitive modes in children. *Child Develpm.,* 1965, **36,** 869–886.

50. Himmelweit, H. T., A. N. Oppenheim, and P. Vance: *Television and the child: An empirical study of the effect of television on the young.* Fair Lawn, N. J.: Oxford, 1958.

51. Jacobs, T. J.: What's wrong with children's television? *The New York Times,* Dec. 27, 1970.

52. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

53. Klapper, J. T.: *The effects of mass communication.* Glencoe, Ill.: Free Press, 1960.

54. Lam, C. D.: Pupil preference for four art styles used in primary reading textbooks. *Reading Teacher,* 1969, **23,** 137–143.

55. Laurence, R., and B. Sutton-Smith: Novel responses to toys: A replication. *Merrill-Palmer Quart.,* 1968, **14,** 159–160.

56. Lewis, E.: The function of group play during middle childhood in developing the ego complex. *Brit. J. med. Psychol.,* 1954, **27,** 15–29.

57. Lieberman, J. N.: Playfulness and divergent thinking: An investigation of their relationship at the kindergarten level. *J. genet. Psychol.* 1965, **107,** 219–224.

58. Lövass, O. I.: The effect of exposure to symbolic aggression on aggressive behavior. *Child Develpm.,* 1961, **32,** 37–44.

59. Lyness, P. L.: Patterns in mass communications tastes of the young audience. *J. educ. Psychol.,* 1951, **42,** 449–467.

60. Maas, J., and W. B. Michael: The relationship of interest choices of kindergarten children to social group membership and to sex differences. *Calif. J. educ. Res.,* 1964, **15,** 24–33.

61. Maccoby, E. E., W. C. Wilson, and R. V. Barton: Differential movie-viewing behavior of male and female viewers. *J. Pers.,* 1958, **26,** 259–267.

62. Margolin, E.: Work and play: Are they really opposites? *Elem. Sch. J.,* 1967, **67,** 343–353.

63. Margolin, E. B., and D. A. Leton: Interest of kindergarten pupils in block play. *J. educ. Res.,* 1961, **55,** 13–18.

64. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.,* 1961, **75,** no. 5.

65. Martin, P. C., and E. L. Vincent: *Human development.* New York: Ronald, 1960.

66. Mason, G. E.: Children learn words from commercial TV. *Elem. Sch. J.,* 1965, **65,** 318–320.

67. McCullough, C. M.: A log of children's out-of-school activities. *Elem. Sch. J.,* 1957, **58,** 157–165.

68. McKellar, P., and R. Harris: Radio preferences of adolescents and children. *Brit. J. educ. Psychol.,* 1952, **22,** 101–113.

69. Merrill, I. R.: Broadcast viewing and listening by children. *Publ. Opin. Quart.,* 1961, **25,** 263–276.

70. Millichamp, D. A.: Another look at play. *Instit. Child Stud. Bull., Toronto,* 1953, **15,** no. 4, 1–13.

71. Moore, T.: Realism and fantasy in children's play. *J. child Psychol. Psychiat.,* 1964, **5,** 15–36.

72. Moyer, K. E., and B. H. Von Gilmer: Experimental study of children's preferences and use of blocks in play. *J. genet. Psychol.,* 1956, **89,** 3–10.

73. Mussen, P. H., J. J. Conger, and J. Kagan: *Child development and personality,* 3d ed. New York: Harper & Row, 1969.

74. Mussen, P. H., and E. Rutherford: Effects of aggressive cartoons on children's aggressive play. *J. abnorm. soc. Psychol.,* 1961, **62,** 461–464.

75. *New York Times* Report: Parents advised to curb TV fare. *The New York Times,* July 28, 1961.

76. *New York Times* Report: 84 killings shown in 85½ hours on 3 networks. *The New York Times,* July 26, 1968.

77. Noble, G.: Film-mediated aggressive and creative play. *Brit. J. soc. clin. Psychol.,* 1970, **9,** 1–7.

78. Norbeck, E.: Human play and its cultural expression. *Humanitas,* 1969, **5**, 43–55.

79. O'Brien, C. C.: The role of music in guiding the child. *Education,* 1953, **73**, 1–6.

80. Payne, E.: Musical taste and personality. *Brit. J. Psychol.,* 1967, **58**, 133–138.

81. Peller, L. E.: Daydreams and children's favorite books. *Psychoanal. Stud. Child,* 1959, **14**, 414–433.

82. Podolsky, E.: Horrors. *Calif. P-T J.,* Dec. 23, 1952.

83. Pulaski, M. A. S.: Play as a function of toy structure and fantasy predisposition. *Child Develpm.,* 1970, **41**, 531–537.

84. Reece, L. H.: The play needs of children aged 6 to 12. *Marriage fam. Living,* 1954, **16**, 131–134.

85. Reiber, M.: The effect of music on the activity level of children. *Psychonomic Science,* 1965, **3**, 325–326.

86. Ricciuti, E. A.: Children and radio: A study of listeners and nonlisteners to various types of radio programs in terms of selected ability, attitudes and behavior measures. *Genet. Psychol. Monogr.,* 1951, **44**, 69–143.

87. Ridder, J. M.: Pupil opinion and the relationship of television viewing to academic achievement. *J. educ. Res.,* 1963, **57**, 204–206.

88. Rosenberg, B. C., and B. Sutton-Smith: A revised conception of masculine-feminine in play activities. *J. genet. Psychol.,* 1960, **96**, 165–170.

89. Rosenblatt, P. C.: Functions of games: An examination of individual difference hypothesis derived from a cross-cultural study. *J. soc. Psychol.,* 1962, **58**, 17–22.

90. Rush, W. S.: Some factors influencing children's use of the mass media of communication. *J. exp. Educ.,* 1965, **33**, 301–304.

91. Sadler, W. A.: Creative existence: Play as a pathway to personal freedom and community. *Humanitas,* 1969, **5**, 57–97.

92. Schramm, W., J. Lyle, and E.B. Parker: Patterns in children's reading of newspapers. *Journalism Quart.,* 1960, **37**, 35–40.

93. Schramm, W., J. Lyle, and E. B. Parker: *Television in the lives of our children.* Stanford, Calif.: Stanford, 1961.

94. Scott, L. F.: Relationships between elementary school children and television. *J. educ. Res.,* 1958, **52**, 134–137.

95. Seagoe, M. V.: Children's play as an index of degree of socialization. *Proc. 77th Ann. Convent. APA.,* 1969, **4**, 683–684.

96. Seagoe, M. V., and E. Murakami: A comparative study of children's play in America and Japan. *Calif. J. educ. Res.,* 1961, **12**, 124–130.

97. Siegel, A. E.: The influence of violence in the mass media upon children's role expectations. *Child Develpm.,* 1958, **29**, 35–56.

98. Spiegelman, M., C. Terwilliger, and F. Fearing: The content of the comic strip: A study of a mass medium of communication *J. soc. Psychol.,* 1952, **35**, 37–57.

99. Stone, L. J., and J. Church: *Childhood and adolescence,* 2d ed. New York: Random House, 1968.

100. Sullenger, T. E., L. H. Parke, and W. K. Wallin: The leisure time activities of elementary school children. *J. educ. Res.,* 1953, **46**, 551–554.

101. Sutton-Smith, B.: Play preference and play behavior: A validity study. *Psychol. Rep.,* 1965, **16**, 65–66.

102. Sutton-Smith, B.: Role replication and reversal in play. *Merrill-Palmer Quart.,* 1966, **12**, 285–298.

103. Sutton-Smith, B.: Novel responses to toys. *Merrill-Palmer Quart.,* 1968, **14**, 151–158.

104. Sutton-Smith, B., and P. Gump: Games and status experience. *Recreation,* 1955, **48**, 172–174.

105. Thayer, L. O., and N. H. Pronko: Some psychological factors in the reading of fiction. *J. genet. Psychol.,* 1958, **93**, 113–117.

106. Thompson, G. W.: Children's acceptance of television advertising and the relation of televiewing to school achievement. *J. educ. Res.,* 1964, **58**, 171–174.

107. *Time* Report: Who's afraid of a big, bad TV? *Time* Magazine, Nov. 23, 1970, pp. 60–73.

108. United Nations Report: Games of childhood same around world. *The New York Times,* May 24, 1953.

109. Wallace, E. H.: Selected out-of-school factors that affect Negro elementary school children. *J. educ. Res.,* 1960, **54**, 118–120, 137–140.

110. Wang, J. D.: The relationship between children's play interests and their mental ability. *J. genet. Psychol.,* 1958, **93**, 119–131.

111. Wertham, F.: The scientific study of mass media effects. *Amer. J. Psychiat.,* 1962, **119**, 306–311.

112. Whitehead, P. C.: Sex, violence, and crime in the mass media *Canada's Mental Health,* 1970, 18, 20–23.

113. Winston, S.: Children and the mass media. *Children,* 1970, 17, no. 6, 242.

114. Witty, P. A.: Studies of the mass media: 1949–1965. *Science Education,* 1966, **50**, 119–126.

115. Witty, P. A., and P. Kinsella: Children and the electronic Pied Piper. *Education,* 1959, **80**, 48–56.

116. Zusne, L.: Measuring violence in children's cartoons. *Percept. Mot. Skills,* 1968, **27**, 901–902.

WAYNE MILLER—MAGNUM

CHAPTER THIRTEEN Creativity

PSYCHOLOGISTS AND OTHERS have long recognized the importance of creativity to individuals and to society. In spite of this recognition, however, creativity is still one of the most neglected subjects in scientific research.

The reasons for this neglect are many. *First,* there was the traditional belief that creativity—commonly called "genius"—was hereditary and that nothing could be done to make a person creative. He was either born with the "divine spark" of genius or he was not.

Second, only a few people were believed to have the ability to create, and it was thought that scientific research should concentrate on matters that affect the majority of the population. This belief has been backed up by evidence of the relatively small number of truly creative products, whether in art, literature, music, or science, that attract widespread attention.

Third, it has been argued that the competent plodder—the person with high intelligence and achievement drive—is more likely to be a success in life than the creative person. The latter often lives and dies in poverty and his achievements may not be recognized until after his death, if even then. Consequently, with the rewards of creativity so uncertain, there was little incentive to encourage children in this direction.

Fourth, the traditional belief that creative people are sex inappropriate—that creative men are sissies and creative women more masculine than feminine—has discouraged parents from praising their children's creative urges. Many fathers, for example, oppose their sons' interest in music, art, writing, or even inventing, but praise their achievements in sports. A vocation in the business world is more "practical," more "masculine," than one in the arts. This negative attitude toward creativity has discouraged the development of scientific interest in it.

Fifth, creativity is difficult to study and even more difficult to measure. Wtih present-day emphasis on the measurement of different human qualities—intelligence, personality, or mechanical ability—it is not surprising that scientists have shied away from research in an area that presents such enormous difficulties.

Even though scientific interest in creativity dates back to Galton's studies of genius in the middle of the nineteenth century, this interest never gained momentum until after World War II. Since then, interest in studying creativity has been stimulated by the need for scientists and technologists to meet the demands of the space age and for people with vision, foresight, and ingenuity to head the ever-growing number of giant corporations in the business and industrial areas of our economy.

As scientific research on creativity has increased, to meet these practical demands of modern life, it has become apparent that many of the traditional beliefs about creativity are wholly or partially incorrect. Even more important, it has become apparent that creativity, like other areas of the child's hereditary endowment, can be fostered or deadened by his environment, especially during the early, formative years.

In spite of this late start, there is, today, enough scientific evidence available to justify taking a close look at it. The major questions are: How important is creativity to the child's development, and what role does creativity play in personal and social adjustments? Scientific research has given us an entirely new concept of what creativity is and how it can benefit both the individual and the social group.

Several decades ago, a discussion of family relationships was regarded as irrelevant in a textbook devoted to child development. Such material, it was argued, belonged in sociology textbooks, not in those concerned with the psychological development of the child. It soon became clear, however, that the two subjects are closely related, and that omitting material about the family from a psychological study of the child meant ignoring an important factor in his development. As time goes on and scientific research in creativity increases, a similar conclusion may be drawn about creativity.

Meaning of Creativity

"Creativity" is one of the most ambiguous and, hence, most loosely used terms in psychological research today. It is even more ambiguous and more loosely used in the vocabulary of the layman.

The popular definition of creativity emphasizes making something that is new and different. Most people believe that creativity can be judged by the *product* or by what the person creates. But creativity does not always lead to products that can be observed and judged. In daydreaming, for example, a person creates something new and different, but he alone knows what it is.

Consequently, creativity must be regarded as a *process*—a process by which something new, either an idea or an object in a new form or arrangement, is produced. The emphasis on the act of producing rather than on the end result of this act is accepted today as central to the concept of creativity.

A second aspect of the popular definition regards creativity as the haphazard creation of something new and original by chance, as when a child, playing with blocks, constructs a pile that resembles a house and then labels it a house. Similarly, when an artist is mixing colors and by chance produces a shade of red or green different from colors already commonly in use, he is often credited with being "original."

There is little evidence that this popular concept of creativity is valid. True, the creative person may not start out with a specific goal in mind, and he is even less likely to verbalize what his goal is. But, as Freud pointed out many years ago, creativity is *motivated* and serves to turn energy—in Freud's early explanation, sexual energy—into some higher outlet which Freud referred to as "sublimation." Today, it is recognized that all creativity is goal-directed even though the goal may be no more than the immediate pleasure the person derives from his activities.

The everyday concept of creativity also holds that what is created is always new and different from what already existed and, therefore, is unique. There is ample evidence that this concept is not correct or is only partially correct. Granted that all creativity involves the *combination of old ideas or products* into new forms, but the old are the basis for the new. The painter who produces a new red makes use of old colors just as the child, in creating a daydream world, makes use of scenes and actions he has experienced in daily life, or observed in the mass media. Furthermore, *uniqueness is a personal achievement,* not necessarily a universal achievement. A person can be creative when he produces something *he* has never produced before, although it may have been produced in almost the same form, or even in an identical form, by someone else.

A fourth aspect of the popular notion of creativity is that it is a unique mental process—a process needed for no other purpose than to produce something new, different, and original. Instead, creativity involves a specific kind of thinking, labeled by Guilford as "divergent thinking." According to Guilford, *divergent thinking* makes excursions from the beaten track and seeks variety. It goes beyond the obvious and apparent, considering several possible answers to a problem, not one single correct solution. This contrasts with "convergent thinking," which follows the conventional path with the thinker using information at hand to arrive at a conclusion that leads to one right answer, an answer similar to that which others would reach (54, 55).

The creative person likes to explore things mentally and to try out lots of possibilities, even if they are wrong. This kind of thinking is often employed in day-to-day activities not usually considered creative. The creative person, however, is more flexible and fluid than the convergent thinker and does not confine himself to the information at hand. This permits a richer flow of ideas and, as a result, it opens up a way toward solutions that are novel and, hence, creative (54).

Another characteristic of divergent thinking—the kind that is used in creativity—is that it makes leaps. It does not proceed in easily observable and definable phases as is true of convergent thinking. Convergent thinking is sequential; it proceeds one step at a time. It is guided by a purpose; thus, it examines alternatives and sets controls to check the veracity of the propositions being considered (94).

Fifth, creativity is often considered synonymous with high intelligence. This belief has been reinforced by the fact that people with very high IQs are labeled "genius"—a term which the layman equates with creativity. There is little evidence that high intelligence and high creativity always go hand in hand. Instead, creativity is just *one* aspect of intelligence, as is memory or reasoning.

Sixth, the common concept of creativity as a spark of genius which is inherent in a person and has no relationship to learning or environment suggests that the creative person himself is just a vehicle. It suggests that he plays no role in his creative behavior except to express in overt actions an inherent trait that his own experiences and decisions have little to do with. If a person is to be creative, however, he must *acquire accepted knowledge* before he can use it in a new and original way. As Drevdahl has pointed out, the creative person is "both conventional and unconventional" (39).

Seventh, creativity is commonly regarded as synonymous with imagination and fantasy and, as such, is a form of mental play. Rather, as Goldner has said, creativity is an "organized, comprehensive, imaginative activity of the brain toward an original outcome." It is, thus, *innovative* rather than reproductive (48).

Another popular notion about creativity is that all people fall roughly into two major groups, the "conformers" and the "creators." The conformer does what is expected of him without disturbing or causing trouble for others. By contrast, the creator contributes original ideas, a different point of view, or a new way of looking at a problem and attacking it. He does not follow the beaten path and is sometimes a disturbing element in the social group. The degree of the disturbance and of his acceptance depends on how far he deviates from the beaten path traveled by the majority.

This notion suggests that a child is either a creative person or a noncreative person, he is a conformer all the way or a creator. It admits no variation in the degree of creativity one may possess. While the measurement of creativity is still in its infancy, owing mainly to the difficulty of devising ways to measure it accurately, there is enough evidence from observation and from the simple measurements now available to show that this notion is not true. Children can no more validly be divided into two major groups in terms of creativity than they can in terms of intelligence or any other characteristic. Instead, children possess *varying degrees of creativity* just as they possess varying degrees of intelligence. This means that, while a child may be predominately a conformer, he also has some creative ability and vice versa.

A WORKABLE DEFINITION

Many definitions of creativity that might be acceptable to the scientist are so brief that they do not cover all the important elements required in a workable definition. The one given by Drevdahl (39) has therefore been selected as a good, workable definition:

> *Creativity is the capacity of persons to produce compositions, products or ideas of any sort which are essentially new or novel, and previously unknown to the producer. It can be imaginative activity, or thought synthesis, where the product is not a mere summation. It may involve the forming of new patterns and combinations of information derived from past experiences, and the transplanting of old relationships to new situations and may involve the generation of new correlates. It must be purposeful or goal directed, not idle fantasy —although it need not have immediate practical application or be a perfect and complete product. It may take the form of an artistic, literary or scientific production or may be of a procedural or methodological nature.*

Since creativity is so complex and so often misunderstood, its important elements are brought together and presented in a concise form in Box 13-1. A careful study of these elements will reveal two facts: *First,* creativity as viewed by the scientist is very different from the popular concept of it, and *second,* creativity is a far more complex activity than most people recognize.

RELATION OF CREATIVITY TO INTELLIGENCE

Occasionally there are reports of people with highly creative talents whose intellectual levels are low, and it is well known that not all people with high intelligence are creators. Many bright children, for example, achieve academic success, but few exhibit a creative way of thinking that goes beyond "giving teacher what she wants."

Whether high intelligence and high creativity will go hand in hand depends largely on factors extraneous to both creativity and intelligence. Factors in the environment or within the person himself often interfere with the development of creativity. Strict authoritarian child-training methods in the home or school during the early, formative years may stifle creativity but not affect a high native intelligence. Under such conditions the correlation between intelligence and creativity will be low.

There is, however, a positive correlation between intelligence and creativity. This may at first sound contradictory. But remember that creativity, which leads to the production of something new, is dependent upon the ability to acquire accepted knowledge. That knowledge is then organized and manipulated into new and original forms. Creativity cannot function in a vacuum. It makes use of knowledge previously acquired, and this depends upon the intellectual abilities of the person.

In the absence of obstacles that interfere with the development of creativity, it is reasonably safe to say that the more intelligent the child the more creative he *could* be. On the other hand, it is questionable whether a child with very low intelligence could ever be more than moderately creative even under the most favorable of environments.

RELATION OF CREATIVITY TO PERSONALITY

A number of studies have been made of the personality patterns of highly creative children, adolescents, and adults. These studies report that no single trait is characteristically found among those who are creative but rather a cluster of related traits, referred to as the "creativity syndrome."

Among the traits in the creativity syndrome are flexibility, nonconformity, need for autonomy, need for independence, high aspirations, self-discipline, playfulness, liking for manipulation of ideas (toying with ideas), assertiveness, reserve, self-assurance, sense of humor, open-mindedness, intellectual persistence, self-confidence, curiosity, enjoyment of calculated risk when success depends on own ability, sex inappropriate interests, timidity in social situations, preference for fantasy to real adventure, venturesomeness, and pursuit of self-chosen interests (10, 57, 120, 140).

Not every creative child has all these personality characteristics, nor do all who possess them have them in the same degree. A creative child who is regarded as having "wild ideas" may or may not be timid in social situations. It depends. Is he accepted by the peer group? Is he derided by his family? Is he made to feel "different"?

For the most part, there is little evidence that children who are creative are either maladjusted or lonely, as tradition holds. If they are, it is mainly because unfavorable social attitudes toward them have led to maladjustment and social isolation. The situation is very much the same with children who have very high IQs.

When the personality syndrome characteristic of creativity is combined with a high level of intelligence, it is likely to lead to successful achievement and to good personal and social adjustment. When combined with low intelligence—and this is not common—it is likely to lead to trouble both for the individual and for the social group. Children fitting the latter description often become rebellious, antagonistic, and troublesome nonconformists.

Values of Creativity

Popular belief about the value of creativity centers on what the creative person produces for the benefit and enjoyment of the social group and for social progress. The value of creativity to the person who is creative has often been almost completely overlooked.

Creativity gives the child tremendous personal pleasure and satisfaction—rewards that have a marked influence on his developing personality. Nothing, for example, gives the child more satisfaction and joy than to create something all by himself, whether it is a house made out of a turned-over chair covered by a blanket or a drawing of his pet dog. And nothing is more ego deflating than to have his creation criticized or ridiculed or to be asked what it is supposed to be. In speaking of imagination, which is essential to creativity, Jersild has said, "A large and fascinating world opens up to a child when he is able to imagine. He now begins to deal with the images of things instead of being bound to what is tangible before him" (70).

Being creative is valuable to a young child because it adds spice to his play, to the activities around which his life centers. If creativity can make play pleasurable for him, he will be happy and contented, and this, in turn, will lead to good personal and social adjustments.

As the child grows older, achievement is of major importance in his adjustment to life. Creativity that helps him achieve success in areas that matter to him and are favorably viewed by people who are significant to him will be a source of great ego satisfaction.

Unquestionably, creativity will make a great contribution to the child if it helps him develop a pattern of life to his own liking. In this connection, a distinc-

Box 13–1

CHARACTERISTIC ELEMENTS OF CREATIVITY

- Creativity is a process, not a product.
- The process is goal-directed, either for personal benefit or for the benefit of the social group.
- It leads to the production of something new, different, and, therefore, unique for the person whether it be verbal or nonverbal, concrete or abstract.
- Creativity comes from divergent thinking, while conformity and everyday problem solving comes from convergent thinking.
- It is a way of thinking; it is not synonymous with intelligence, which includes mental abilities other than thinking.
- The ability to create depends on the acquisition of accepted knowledge.
- Creativity is a form of controlled imagination that leads to some kind of achievement, whether in painting, block building, or daydreaming.

tion is made between personal adjustment and social adjustment. If, instead of being forced into a pattern that fits the needs of siblings or peers, the child can discover a pattern that appeals to him and in which he can be satisfied and happy, it will go a long way toward helping him to make a good personal adjustment to life even though his social adjustment might have been better if he had molded his life pattern along lines that appeal to or suit his peers. For example, a child with special talents can be happy and well adjusted personally only if he is permitted to engage in activities that make use of his special talents. If, in addition, however, his environment provides opportunities for social contacts with other children whose interests and talents are similar to his, he can retain his individuality and at the same time be well adjusted socially.

Development of Creativity

Creativity appears early in life and is shown first in the child's play. Gradually it spreads to other areas of life. Studies of the creative productions of men and women show that creativity normally reaches its peak during the thirties and then either remains on a plateau or gradually declines (37, 81, 116).

Lehman has explained the early peak in creativity as due to environmental factors, such as poor health, family circumstances, financial pressures, and lack of free time. There is no evidence that the early peak or the subsequent decline is due to hereditary limitations (80).

Whether this pattern will be followed or not will depend largely upon environmental influences that facilitate or hinder the expression of creativity. Arasteh has reported that the development of creativity may be obstructed at several "critical periods" during childhood and adolescence (10). Box 13-2 lists these periods and explains why they are regarded as critical. Some children are subjected to environmental factors that result in a stifling of their creativity at these periods while other children of the same age are not.

PERSISTENCE OF CREATIVITY

The best way to study persistence is to trace the development of a group of children from early childhood into adulthood or even middle age. This approach has not, to date, been used to study creativity. The obstacle is not lack of scientific interest, but rather the lack of adequate measuring devices—standardized tests that can discover creativity in children and measure changes that take place as children grow older. The few tests that are available today are regarded as experimental and far too unreliable to use for a genetic study. This problem will be discussed in a later section.

In *Genetic Studies of Genius*, Terman and Oden indirectly studied creativity from childhood into adulthood in connection with their study of the interests and activities of very bright children. They reported a persistence of creative interests through the years (138). Both Dennis and Lehman, who studied creativity mainly in the areas of science, have reported that those who achieved creative distinction in their field had shown interest from childhood days in the areas in which they achieved success (37, 81). These studies, however, were retrospective and, like all retrospection, they are subject to inaccuracies caused by the subjects' forgetfulness and tendency to exaggerate favorable qualities or experiences.

Helson has reported the results of a study of the childhood interest clusters related to creativity in women. While this, too, was a retrospective study, Helson concentrated on the interests of the women, not on their acheivements. Since childhood interests are less likely to be forgotten or exaggerated than childhood achievements, this study is of particular significance as evidence of persistence.

According to Helson's findings, creative women, as children, showed both interest in and experiences related to such creative activities as imaginative play, painting, writing stories, or putting on plays. This contrasted with noncreative women, who as children enjoyed tomboy activities involving aggression and competition, or those who enjoyed conventional games and play activities where creativity played only a very minor role (61).

VARIATIONS IN CREATIVITY

While studies of variations in creativity have not been numerous, they have emphasized five major factors: sex, socioeconomic status, ordinal position in the family, family size, and urban-rural environment influences.

Sex. Boys, it has been reported, show greater creativity than girls, especially as childhood advances (10, 139). In large part, this is due to the different treatment boys and girls receive. Boys are given more opportunities to be independent and are encouraged by parents and teachers to show more initiative and ingenuity.

Socioeconomic Status. Children of the higher socioeconomic groups tend to be more creative than those of the lower groups (128). The former, for the most part, are brought up under democratic child-training methods, while the latter are far more likely to experience authoritarian training. This will be discussed in Chapter 15, Moral Development. Democratic control fosters creativity by giving children more opportunities to express their individuality and pursue interests and activities of their own choosing. Even more important, the environment of children of the higher socioeconomic groups provides more opportunities for gaining the knowledge and experience necessary for creativity. For example, young children from deprived homes have very few creative materials to play with and little encouragement to experiment with clay, paints, and puppets as compared with those from more favorable socioeconomic environments.

Ordinal Position. In recent years, order of birth and its effects on child development have attracted widespread scientific attention. A number of studies have reported differences in creativity. As with the other factors, the explanations stress environment rather than heredity. Middle, later-born, and only children are likely to be more creative than the firstborn. Typically, the firstborn is subjected to greater pressures to conform to parental expectations than those born later—pressures that encourage the child to be a conformer rather than a creator. An only child is spared many of the parental pressures common in homes where there are siblings and is also given opportunities to develop individuality (34, 42, 58, 133).

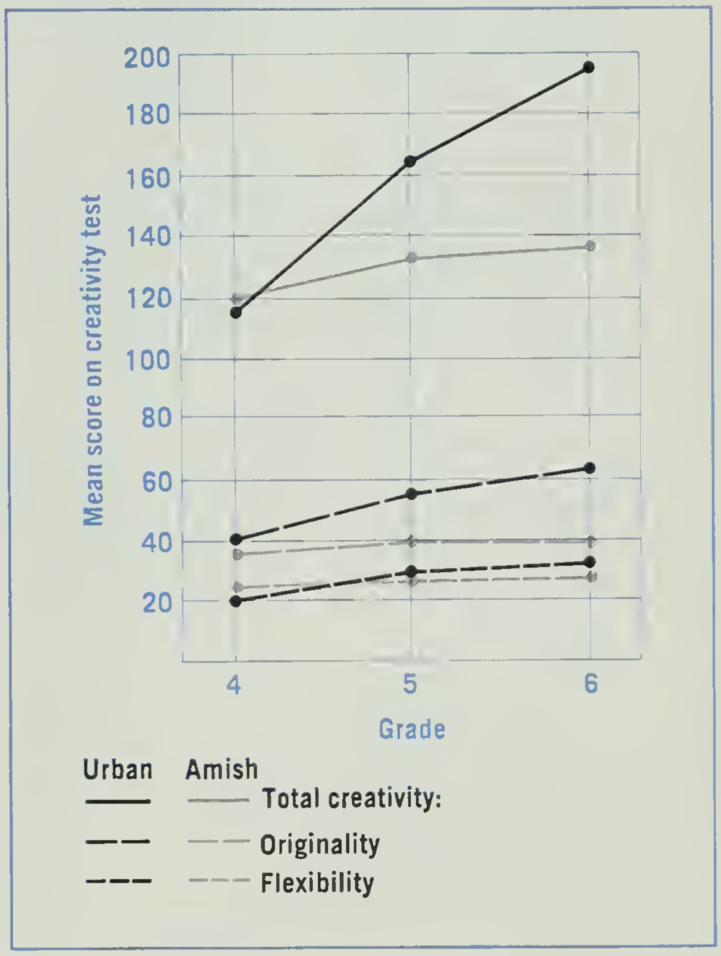
Family Size. Children from small families, other conditions being equal, tend to be more creative than children from large families. In large families, authoritarian child-training controls and less favorable socioeconomic conditions are more likely to prevail and militate against the development of creativity.

Urban versus Rural Environments. Children from urban environments tend to be more creative than children from rural environments. Authoritarian training is more common in rural homes, and the rural environment offers less stimulation to creativity than the larger environments of cities and their suburbs (83). Figure 13-1 shows a comparison of urban and rural groups—the latter based on studies of Amish children—in tests of creativity, originality, and flexibility.

Conditions Influencing Development of Creativity

One of the major questions researchers in creativity have asked is: What conditions in the child's life favor or obstruct the development of creativity? The more evidence there is that creativity must be given opportunities to develop in socially acceptable directions if it is to be a source of positive value in the child's life, the more emphasis this question has received. Although most of the studies are of relatively recent origin, they are numerous enough and their results similar enough to inspire confidence in their findings.

Figure 13-1. In tests of creativity, rural children score lower than those from urban areas. (Adapted from M. L. Lembright and K. Yamamoto, Subcultures and creative thinking: An exploratory comparison between Amish and urban school children, Merrill-Palmer Quart., *1965,* **11**, *49-64. Used by permission.)*



OBSTACLES TO DEVELOPMENT OF CREATIVITY

Within the *home* are many conditions that affect the development of creativity. If unfavorable, they may present almost insurmountable obstacles. A first environment that stifles the development of any natural ability to be creative when this characteristic is maturationally ready to develop can be most damaging. Further, unfavorable conditions in the home when the child is young are likely to persist and thus to obstruct the development of creativity as the child grows older.

When parents discourage children from exploring and from expressing their curiosity by asking questions, for example, they are also discouraging the development of creativity. Parents may not, of course, see the relationship between exploring and creativity. They may think they are being "good" parents, keeping their children from getting hurt.

Box 13-2

CRITICAL PERIODS IN DEVELOPMENT OF CREATIVITY

5 to 6 Years

Before the child is ready to enter school, he learns that he must accept authority and conform to the rules and regulations of adults in the home and later in the school. The stricter the authority, the more it will stifle creativity.

8 to 10 Years

The desire to be accepted as a member of a gang reaches its peak at this time. Most children feel that, to be accepted, they must conform as closely as possible to the pattern set by the gang and that any deviation is a threat to acceptance.

13 to 15 Years

Striving for peer approval, expecially from members of the opposite sex, controls the young adolescent's pattern of behavior. Like the gang-age child, the young adolescent conforms in the hope of winning approval and acceptance.

17 to 19 Years

At this age, striving for approval and acceptance as well as training for a chosen vocation may curb creativity. If the vocation necessitates conforming to a standard pattern and following specific orders and rules, as in nursing, it will stifle creativity.

When the child's time is regimented or when parents try to encourage togetherness for family activities, they place roadblocks in the way of attempts by the child to develop individual interests and to engage in activities that give him particular enjoyment. Pursuits that delight him may be boring to siblings and other family members, and vice versa.

If parents regard fantasy as useless or as harmful because it leads to "bad ideas," they are likely to discourage creativity and encourage practicality and "realism" both in child's play and in his aspirations for the future.

Well-meaning parents often stifle creativity by providing children with "practical" toys or toys that offer little opportunity for creative play. Typical of such highly structured toys are plaques to be painted, molds for clay, fully clothed dolls, ready-made costumes, and fully furnished dollhouses (117).

School conditions also affect the development of creativity. If unfavorable, they can counteract much of the stimulation of creativity provided by a favorable home environment. That is one of the reasons why the age of school entry is a "critical period" in the development of creativity. (Refer to Box 13-2.)

Among the many school conditions that discourage the development of creativity are very large classes where regimentation is essential; strong emphasis on memorizing; discouragement of anything that does not fall within the prescribed pattern, whether it be original painting or original storytelling; a highly organized schedule of class activities; strict, authoritarian discipline; and the belief of teachers that creative children are hard to manage and their work harder to grade than that of the conformers. If teachers regard academic achievement as the only path to success in life, the obstacles to creative expression may be overwhelming.

Social factors often militate against the development of creativity. They affect both parents and teachers. Obstructive social factors take two common forms: unfavorable attitudes toward children who are creative and lack of social rewards for creativity. In discussing unfavorable social attitudes, Torrance (139) has said:

> *In spite of the fact that these children have many excellent ideas, they readily achieve a reputation for having silly, wild, or naughty ideas. It is difficult to*

> *determine what effect this derogation of their ideas has on their personality development, as well as upon the future development of their creative talents. . . . Although their humor and playfulness may win some friends for them, it does not always make them "easier to live with." In fact, it may make their behavior even more unpredictable than otherwise and this probably makes their presence in a group upsetting.*

Children soon discover that creativity is less of an asset than a high IQ in meeting the demands of the school. As Jersild has pointed out, the school encourages and rewards convergent or conventional thinking more than potentially creative divergent thinking. Thus, the chances are that the "promise of youth" (which Terman and Oden reported as fulfilled by a high-IQ group) would not similarly be fulfilled by a highly creative group (138). Jersild (70) wrote:

> *The creative child must come up against an adverse wind when teachers and peers regard his ideas as wild or silly. He must struggle, often single-handedly, to assert and maintain the integrity of his individual talents. As he moves into adult life, the person with a high IQ usually finds a ready-made market for his abilities. He can through his energies single-mindedly win his way into his vocation. The creative person is less sure of a market. He may have to pursue his creative interests through an avocation.*

Not only do obstructive social attitudes and the lack of rewards discourage creativity but even worse, they often foster maladjustive behavior by developing in the child an unfavorable self-concept. While some children may withdraw from a social group that has a poor opinion of them, others are likely to retaliate by being troublesome and vindictive.

CONDITIONS FAVORING DEVELOPMENT OF CREATIVITY

Unquestionably the negative factor that most discourages creativity is unfavorable social attitudes. These influence peers, parents, and teachers and their treatment of potentially creative children. If conditions favorable to the development of creativity are to be established, this negative factor must be eliminated. The belief that goodness is synonymous with conformity, and badness or naughtiness with nonconformity, must give way to the belief that creativity plays too important a role in life to be labeled an insignia of badness (30).

Cowan (30) has explained why a more positive attitude must prevail if children who are creative are to develop their potentials:

> *Creative children are more like adults than other children: they tend to want more autonomy and more independence. All people are pretty reasonable about limits and restraints. What no one wants, including creative children, are arbitrary limits. . . . Without freedom, no one can be creative. And creativity is nurtured by warmth and affection.*

Besides the elemination of negative social attitudes, a number of positive things can be done to foster creativity. First and foremost is the provision of an immediate environment that favors creativity and encourages children who show a desire to be creative. Pressey has emphasized several factors: "Development of any ability is fostered by a favorable immediate environment, expert instruction, frequent and progressive opportunities for the exercise of ability, social facilitation, and frequent success experiences" (116).

Discovery of Creativity

In the past, a creative person was discovered only after he had produced something original, such as a picture, a musical composition, or an invention. With our present knowledge of how the ability to be creative—commonly known as "talent"—can be fostered or stifled by environmental influences, it has become apparent that waiting until the creative person has produced something worthy of attention may, for most children, mean waiting until it is too late.

Consequently, interest today is centered on ways of discovering *potential* creativity so that it can be given an opportunity to develop. Discovering potential creativity has proved to be a very difficult task. In the search, effort has been directed toward the construction of tests that will measure creativity or some aspect of it.

Some of the tests of creativity are verbal and some are visual. In the *verbal tests,* creativity is assessed in terms of the number of words the child can associate with a given word, such as "bolt" or "rain." Or the child may be asked to name all the round things he can think of or to tell how a carrot and a potato are alike. In the *visual tests,* patterned and line drawings are presented to a child and his imagination is judged in terms of what he says the drawings mean to him (6, 23, 55, 139, 144).

One reason such tests have met with little success is that creativity is a rather nebulous concept. Are the things that are being tested creativity or are they some other ability? Furthermore, critics of the tests claim that they do not always meet the requirements of rigorous experimental design.

Teachers try to identify creativity by determining how original the child is in solving a problem or how much of a "personal touch" he gives to his storytelling, his artwork, or his compositions. These judgments are, of necessity, subjective and, consequently, of little scientific value. For the teacher, however, they serve as guidelines in discovering and encouraging creativity. For parents and others whose work is related to guiding the child's development, similar approaches must be used. Until reliable objective tests can be developed, creativity must, of necessity, be discovered by the way it is expressed in the child's activities.

Expression of Creativity in Childhood

In the following pages, some of the most common ways in which children at different ages express their creativity will be discussed. Each means of expression will be critically evaluated to determine whether it leads to good personal and social adjustment and brings satisfaction to the child.

ANIMISM

Animism is the tendency to ascribe consciousness to inanimate objects. Young children have too little knowledge and experience to be able to distinguish between things which have life qualities and those which do not. They *assume* that, since they feel and act certain ways in different situations, everything else does likewise.

It is difficult to tell just when animistic thinking begins because very young children cannot verbalize their thoughts. Thus, their thoughts must be judged in terms of their actions. This approach has led to the conclusion that animistic thinking begins around the time the child is 2 years old, reaches a peak between 4 and 5 years, and then declines rapidly, disappearing shortly after the child enters school (36, 37).

The tendency of the child to endow everything with the same life qualities that he has is very often encouraged by parents. They read him stories or encourage him to look at comics, television programs, or movies in which trees, toys, animals, and objects of all sorts behave like human beings. They try to keep the child from hurting himself or objects during a temper outburst by saying, "Don't kick the poor chair or you will hurt his legs" or "How would you feel if I threw you around the way you are throwing poor dolly?"

In trying to explain natural phenomena, such as clouds, stars, lightning, or snow, adults often encourage children to think of them as having living qualities. Only as children gain more experience and as they begin to understand explanations of the difference between animate and inanimate objects does their animistic thinking wane. Animism can, consequently, be regarded as a creative activity of early childhood, but it rarely continues after the child begins school.

Evaluation of Animism. That animism gives the young child pleasure cannot be questioned. It adds enjoyment to his play with toys during the years when he is too immature to spend much of his playtime with other people. When the child becomes mature enough to understand that his toys do not have the qualities of people and animals, he loses interest in toy play and turns his attention to play in which toys are not needed.

There is no evidence that endowing inanimate objects with life qualities interferes in any way with the child's social or personal adjustments. On the contrary, it helps the child to imagine himself in the place of others and, thus, to develop sympathy and empathy. The child who feels sorry for a toy that is hit by another child, or by himself in a fit of temper, will learn to feel sorry for people in similar situations. As a result, he will learn to curb his aggressive attacks on others. Identifying with a toy likewise gives him a feeling of security that many young children lack. Taking his stuffed dog to bed with him, for example, helps the young child overcome his fear of the dark. He feels that his toy will protect him just as the family dog protects the family.

DRAMATIC PLAY

Dramatic play—often called "make-believe play" —depends largely on the use of toys that represent people or animals and on "props" that represent everyday equipment. Therefore, interest in dramatic play parallels animistic thinking and often loses its appeal about the time children enter school. When the child's reasoning ability and experience enable him to distinguish between fantasy and reality, he loses interest in make-believe play and turns his creative drive to other activities, usually constructive play.

Pattern of Dramatic Play. While the themes of dramatic play vary greatly, the way in which children act out the themes follows a definite and predictable pattern. Stone and Church (134) have described the typical pattern of children's dramatizations:

> *For a three-year-old, a block can be a doll, a train, a building, a cow. For the five-year-old, a block is a building material, and he wants some approximation of a real train to run in and out of the railroad station he makes with his blocks. The three-year-old can people a universe with sticks and stones and paper and rags—which, however, he does not try to shape in representational images. The four-year-old, to be a successful cowboy, wants some outstanding prop—a broad-brimmed hat, a cap pistol, or a neckerchief. For him, one element can stand for the whole configuration "cowboy." The five-year-old, though, is likely to feel dissatisfied in his role-playing unless he can wear the full regalia of his part.*

Dramatizations are reproduced with astonishing fidelity; even the tone of voice of the person imitated is copied. Few stage properties as such are needed. A hat, a cane, a long skirt, or some article usually associated with the person imitated is all the child needs to imagine that he is that person. A rug placed across two overturned chairs serves as a tent, a den, or a cave.

Themes of Dramatic Play. The dramatic play of children is a mirror of the culture which surrounds them; it dramatizes events of their everyday lives. Everything the child hears or sees is repeated in imitative form. Dramatic play also reflects the spirit of the particular period in which the child is growing up. For example, during the Second World War, both boys and girls played war games in which they were soldiers and their toys were tanks, guns, and airplanes. In the space age, children's dramatizations often concentrate on exploring the moon.

Studies of the dramatic play of preschool children reveal that the usual themes of today's children include *domestic patterns,* such as playing house, cooking, eating, taking care of babies, and being fathers and mothers; *imitating animals* that crawl and growl; *taking care of the sick* by imitating doctors or nurses, *playing store;* traveling and other activities connected with *transportation,* such as riding in automobiles, trains, or buses; putting gas in a car or air in the tires; riding in an airplane; and sailing a boat; *punishing,* playing policeman, and gunplay in general; *burning* and playing fireman; *killing and dying;* giving *parties* and *having weddings;* playing the part of *legendary characters* such as Santa Claus, Cinderella, the Big Bad Wolf, or George Washington and of people who are shown in the *movies* or *television,* such as G-men, bandits, or astronauts (93, 135).

Playing house is a universal favorite with children during the preschool years. As Sutton-Smith has reported, "The family group hierarchy is reproduced in the play hierarchy" (135). The younger children passively allow themselves to be led around and "bossed" by the older children, who assume the roles of "Mommy" and "Daddy," and sometimes "Granny." When several children play the role of siblings, the biggest is usually the firstborn; he bosses the younger children, as in real life.

Variations in Dramatic Play. While all young children engage in dramatic play to some extent, marked variations appear in the frequency and themes of their play. This is to be expected because creativity in any form depends partly on hereditary potential and partly on environmental conditions which foster or obstruct its development. Of the many factors responsible for variations in dramatic play, those discussed below are most common.

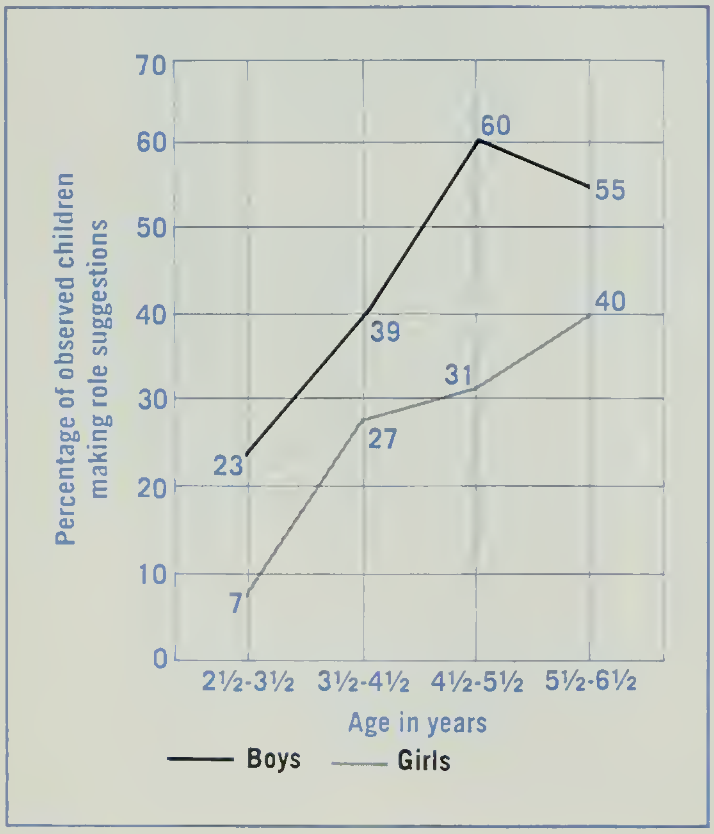
Sex. Girls engage in dramatic play more often than boys, but boys exhibit a greater variety in themes. The greater variety in boys' themes may be explained in two ways: First, the themes of movies and television shows are more suitable models for boys to imitate in their dramatic play, and second, parents talk more to their sons about cowboys, astronauts, guns, fighting, and other topics that can be used in boys' sex-appropriate dramatizations (93). This sex difference is illustrated in Figure 13–2.

Intelligence. Very bright children particularly enjoy dramatic play and use a wide variety of themes. They usually lose interest in this form of play earlier than children who are less bright, however, because they become realistic relatively early and recognize that inanimate objects do not have the life qualities they formerly attributed to them (135).

Degree of Realism. The child who is too realistic or too much of a dreamer does not enjoy dramatizations in his play. The realistic child is unable to imagine things that he does not see in everyday life and, consequently, he merely reproduces the situations that he observes. The daydreamer never gets around to reproducing his creations in his play because he satisfies himself with their imaginary forms.

Effects of Encouragement. Some parents regard dramatic play as a waste of time or as a handicap to realistic achievement. They discourage their children from dramatic play directly by making fun of it and indirectly by not providing the toys and equipment needed to make dramatic play possible. In contrast, parents who feel that dramatic play is not only the birthright of every child but also a means of fostering creative development will encourage it by suggesting themes for dramatization and by providing the materials necessary to carry them out. Since nursery school and kindergarten teachers recognize the value of dramatic play, they make sure that the equipment and materials needed are available and they offer suggestions about how they can be used.

Figure 13–2. Suggestions for roles in dramatic play by boys and girls at different ages. (Adapted from H. R. Marshall, Relations between home experiences and children's use of language in play interactions with peers, Psychol. Monogr., *1961,* 75, *No. 5. Used by permission.)*



Role of Guidance. While adult encouragement is important to the child's enjoyment of dramatic play, guidance is necessary if the play is to provide real satisfaction. Suggestions about how to play in a creative way and how to use materials are helpful, but too much direction and criticism can be damaging. Even when the child is encouraged to engage in dramatic play and is given materials to facilitate this play, his motivation may be weakened by criticism and he may turn his play interests into other channels.

Role of Equipment. Dramatic play cannot take place without some equipment, however simple. One of the reasons children from poor socioeconomic backgrounds engage in dramatic play less than those from more favored backgrounds is that they lack the toys and other equipment needed to provide the settings and actors in this kind of play. A child cannot feed the baby, for example, if there is no doll to represent the baby or no bottle to put to the baby's mouth.

Equipment is essential to dramatic play, but this does not mean that more and more equipment will result in more dramatic play and in a greater number of dramatic-play themes. If it is to serve its purpose as a source of motivation, the equipment must be of the right kind. It must be developmentally appropriate to the child's age and level of intelligence and it must not be so highly structured that it leaves no opportunity for creative use. An electric train, for example, is developmentally inappropriate for the average 2- or 3-year-old because he is unable to handle the intricate mechanism and must call upon a parent or older sibling for help (117).

Evaluation of Dramatic Play. Only if dramatic play persists long beyond the time when children usually engage in this form of creative activity is there any likelihood that the child will be damaged in his personal or social adjustments by it. Like animism, dramatic play is discarded by most children shortly after they enter school. They no longer attribute living qualities to their toys and they are too realistic to want to pretend that their dramatizations are anything but make-believe. Furthermore, as the interest in peer activities increases and the desire for social acceptance becomes stronger, children want to do what their peers are doing. This means that, no matter how much enjoyment they might derive from dramatic play, they abandon it if their peers regard it as babyish and if they have substituted balls, bats, skates, and more grown-up play equipment for their toys.

Box 13-3 describes some of the ways in which dramatic play contributes to the young child's personal *and* social adjustments. Though teachers in nursery schools and kindergartens recognize the value of dramatic play to *social* adjustment, parents often overlook it, giving more attention to personal adjustment contributions.

CONSTRUCTIVE PLAY

As children reach school age and are better able to distinguish between fantasy and reality, they lose interest in dramatic play and turn their attention to constructive play. This does not mean that constructive play begins when dramatic play ends. Constructive play begins early, often sooner than dramatic play, but it is overshadowed by the more exciting play of make-believe. Then, when make-believe loses much of its thrill for the child, he turns his attention to a type of creative play he found enjoyable earlier and devotes more and more time to it.

One of the reasons constructive play is a favorite form of creativity, especially during the preschool years, is that it can be pursued without playmates. Much of the enjoyment the child derives from dramatic play would be lost if he did not have other children to play some of the roles dramatic play involves. Playing house, for example, can be played alone with dolls in the roles of family members. But for most children it is more enjoyable if they have at least one or two playmates to take other roles.

The two most common and popular kinds of constructive play are making things and drawing. As in other creative play, there are marked variations in the frequency with which children engage in these activities and there are differences in the kinds of things they construct. Boys enjoy constructive play as much as girls, for example, but boys and girls of the same age usually follow quite different constructive play patterns.

Making Things. In early constructive play, the child makes things from mud, sand, blocks, clay, paint, paper, and paste.

In kindergarten, most children turn from block building to painting, modeling, painting, puzzles, and collages.

In late childhood, children build tents, playhouses,

Box 13-3

EVALUATION OF DRAMATIC PLAY

Contributions to Personal Adjustment

- Dramatic play gives the child pleasure and eliminates the boredom he might experience when no playmates are available.
- In dramatic play, the child can go beyond the restrictions imposed by reality and thus learn the pleasures and benefits to be derived from creativity.
- Dramatic play enables the child to realize his wishes vicariously, thus eliminating feelings of frustration when his wishes are blocked in daily life.
- Dramatizations serve as a source of emotional catharsis by enabling the child to express frustrations in aggressive make-believe play.
- In his dramatic play, the child can increase his feeling of self-importance by playing roles associated with power and prestige (such as parental roles).
- By dressing up for his roles in make-believe play, the child begins to recognize the value of clothes.

Contributions to Social Adjustment

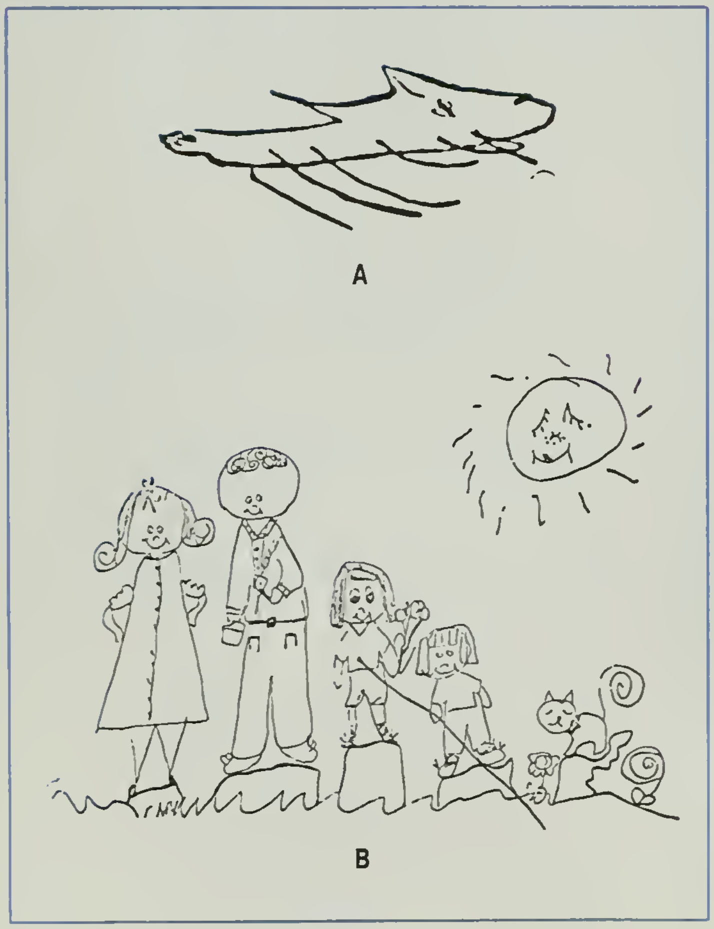
- Dramatic play shows the child the pleasures of social contacts and encourages him to become outer-oriented.
- In his make-believe play, the child learns to be cooperative by playing a role that fits into the pattern of the roles played by others.
- Dramatic play helps the child to learn, through imitation of real or mass-media models, approved social and sex roles.
- In dramatic play the child is motivated to speak, either in making suggestions about the dramatization or in playing his role. Thus, he not only increases his vocabulary but also gains confidence in his ability to communicate with his peers—a skill needed for social acceptance.

huts, snowmen, and dams. Boys and girls use the same materials, but their constructions reflect traditional sex-appropriate patterns.

The young child is pleased with whatever he makes. The older child is more critical of his workmanship, especially in painting and drawing. He may hide his work or even destroy it if others insist on seeing it.

Drawing. The drawings of the young child are creative, not direct copies of people or objects. He draws things as he remembers them or as he would like them to be, and he is uninterested in perspective, proportions, or relationships. He puts in details that interest him, such as buttons on a coat, while omitting essentials, such as a man's legs. From the time the child enters school, his drawings show regard for perspective, relative size, and correctness of detail. Unless he is truly gifted, the child, as a result of the formal instructions he receives in drawing at school, shows less originality in his drawings with each passing year (16). Figure 13–3 shows, from a longitudinal study of one child's drawings, the decrease in originality that tends to occur after the child enters school.

Figure 13–3. (a) *"Wolf, crouching," age 3–4, pen;* (b) *"My family," age 7–10, pencil. Creativity in drawings tends to decrease after the child receives formal instruction in drawing. (Adapted from J. L. Brown, Precursors of intelligence and creativity: A longitudinal study of one child's development,* Merrill-Palmer Quart., *1970,* **16,** *117–137. Used by permission.)*



The drawings of young children usually represent familiar objects, rarely designs. The human form is most popular, with the adult form slightly more popular than the child's. Animals are less frequently drawn than houses and trees.

Among older children, more emphasis is placed on the drawing of machines, designs, animals, houses, flowers, and trees, and less on the human form. Older children frequently draw cartoons similar to comic strips; subject matter is varied, but favorite characters are teachers and peers whom they dislike.

Evaluation of Constructive Play. Constructive play contributes to good personal adjustment but does little toward improving social adjustment. Constructive play is usually carried out as a solitary rather than a group activity, and so it offers little help to the child in making social adjustments. Only when he makes things with another child or several children can it contribute to social adjustments in the same way as dramatic play.

Constructive play aids personal adjustment both directly and indirectly. *Directly,* its contribution comes from the ego satisfaction he receives from being able to construct something by himself: and from the social recognition the child receives for his constructions. Unfortunately, a child's constructive efforts are often criticized or ridiculed by peers, parents, or teachers. If he is required to imitate a model, he may feel that his own efforts are so inferior that he loses all joy and interest in the activity. Such an experience will be ego deflating.

Indirectly, constructive play contributes to personal adjustment by eliminating boredom and any feeling of martyrdom the child might have if he has no one to play with. The child who is bored usually feels sorry for himself. Even worse, he tries to compensate for his boredom by engaging in daydreaming—a type of play that gives temporary satisfaction but, in the long run, plays havoc with good personal and social adjustments. This subject will be taken up in a later section of the chapter.

The contribution of constructive play to good personal adjustment does not end with childhood, as is true of dramatic play. Instead, constructive play often develops into a lifetime hobby. Thus, its contribution to personal adjustment persists.

IMAGINARY COMPANIONS

An imaginary companion is a person, an animal, or a thing which the child creates in fantasy to play the role of a companion. Because much play requires playmates to be enjoyable, the child who lacks a playmate often creates an imaginary one. If a child is timid or has had unpleasant early social experiences, he may prefer an imaginary playmate to a real one.

When the child wants a friend, his imaginary companion will serve as a real friend. Thus, imaginary companions, like real ones, may be either playmates or friends (as explained in the chapter on social adjustments). Regardless of the role the imaginary companion plays, the child derives satisfaction from feeling that he has someone always present. A. A. Milne (102) has described how a young child feels about his imaginary companion:

Binker—what I call him—is a secret of my own,
And Binker is the reason why I never feel alone.
Playing in the nursery, sitting on the stair,
Whatever I am busy at, Binker will be there.

Most imaginary companions are people—mainly children of the child's own sex and age. They have names chosen by the child because he likes them, and physical and personality characteristics the child likes—often those he himself would like to have. Imaginary companions can and will do anything the child wants them to do. This, of course, adds to the pleasure the child derives from them.

Prevalence of Imaginary Companions. Because the imaginary companion is "a secret of my own," the child does not always tell others about him. Observing a child and listening to what he says when he is playing alone, however, will often reveal that he has an imaginary companion. The child's secrecy explains the methodological difficulty of finding out how common a creative activity having an imaginary companion is, what kind of child is most likely to have one, and at what ages imaginary companions are likely to be important in the child's life.

While relatively few studies have been made of this creative activity in childhood, there are enough to give some tentative answers to the above questions. Indications are that imaginary companions are more common among *girls* than among boys, that they are more realistic to girls, and that they persist longer among girls.

Imaginary companions are more prevalent among children of superior *intelligence* than among those of average intelligence. Apparently, children of the lower intellectual levels seldom engage in this form of creativity. Since it requires more mental activity to create a companion than to create a scene with materials and toys, the prevalence of imaginary companions among children of high intellectual levels is understandable. They have more basic information from which to create a companion and the reasoning ability to coordinate their information into a completely new form. Furthermore, very bright children often experience loneliness because they have little in common with their peers or even their siblings.

Children who have *a frictional relationship with their siblings and parents* are far more likely to have imaginary companions than those whose family relationships are harmonious. In a large family, if the age difference between siblings is great or if older siblings resent having to take care of younger children and treat them as nuisances, the children who feel unwanted and unloved will tend to compensate by creating imaginary companions to meet their needs.

No one *personality* type predisposes children to have imaginary companions. Children who are happy and well adjusted have them during the preschool years just as other children do. It has been reported that they are most common among children who have such personality difficulties as timidity in the presence of other children, a domineering manner with other children, fear of physical activities, sensitivity, an undemonstrative manner, evasiveness, irresponsibility, eagerness to be in the limelight, and fear of being outdone by others (5, 68, 132, 151).

Any child who lacks the companionship he craves may compensate by developing an imaginary companion to meet his needs. Imaginary companions are so common during the early childhood years that having one may be regarded as normal. If a child *prefers* imaginary companions beyond the age when children normally have them, however, that may be regarded as a danger signal of poor personal and social adjustments.

Evaluation of Imaginary Companions. An imaginary companion is by no means a satisfactory solution to the lonely child problem. Although it may help the child relieve his loneliness and his feeling of being unloved and unwanted, it does not help him make good personal or social adjustments. True, being able to be the "boss" in his relationships with an imaginary companion will be ego inflating for the child, but it is likely to lead to delusions of grandeur which will be challenged in real-life situations. This is damaging to *personal* adjustment because having to revise one's self-concept and accept a more realistic assessment of oneself is difficult and unpleasant.

Equally damaging to personal adjustment, an imaginary companion encourages the child to become egocentric, selfish, and domineering. When he discovers that these traits lead to social neglect or rejection, he is likely to develop a martyr complex and be even lonelier than before, when he could relieve his loneliness by turning to his imaginary companion for solace.

Having an imaginary companion affects the child's *social* adjustment in many ways. Most important are its effects on the development of social skills and play skills. To make good social adjustments, the child must develop such social skills as cooperation, fair play, honesty, good sportsmanship, and empathy (refer to Chap. 10). He can do this only in social contacts with *real* people in *real* situations. It would be most unlikely for a child to find a real playmate who would be as submissive and as willing to be bossed as an imaginary companion is.

Play skills, like social skills, can be learned only in real-life activities. In childhood, social adjustment depends largely upon the ability to engage in play activities enjoyed by one's age-mates. The child who lacks the play skills necessary to engage in these activities will find himself neglected or rejected. This will further limit his opportunities to master the skills needed for social acceptance.

If the child has a strong motivation to play with the real children who are available and if parents, teachers, or playground supervisors can give him help and guidance in playing in a socially acceptable way, the damaging effects of having an imaginary companion will probably be temporary.

Several studies have been made of college students who, as young children, had imaginary companions. The studies show little evidence of permanent damage from imaginary-companion experiences in early childhood. Comparatively, the students tend to be more introverted, to be less social in their interests, and to have less achievement motivation, but unless these tendencies are strong, they do not seriously impair social adjustment (60, 151). The findings suggest, however, that children who have imaginary companions need guidance and help to guarantee that these tendencies be overcome before they become habitual patterns of personal and social adjustment.

Box 13–4

CATEGORIES OF DAYDREAMS

Conquering-hero Daydreams

The child sees himself as he would like to be in real life—as a cowboy, an astronaut, or an athletic hero. He is always the central character and all other characters pay homage to him.

Suffering-hero Daydreams

The child sees himself as a martyr who is misunderstood and mistreated by parents, siblings, teachers, peers, or society in general. In the end, he turns out to be a hero, and those who mistreated him are penitent and try to do all within their power to compensate for the physical or mental pain they inflicted upon him.

Imaginary-invalid Daydreams

The child sees himself as suffering from a physical ailment which prevents him from doing what other children of his age do. Imaginary-invalid daydreams are, thus, a form of suffering-hero daydream. When these daydreams are vivid, the child actually believes that he is sick or suffering from a physical handicap, such as inability to run or to do things with one or both of his hands.

DAYDREAMING

Like all play, daydreaming is an activity which is engaged in for the pleasure it provides. It is a form of mental play, and is usually called "fantasy" to distinguish it from more controlled expressions of imagination. Blazer has written: "Fantasy is an escape or defensive mechanism offering either solace or an illusionary release from unsatisfying reality or an imaginary satisfaction of wishes any actual gratification of which has been forbidden by repression" (13).

Daydreaming differs from make-believe play in that the role the child plays in his daydreams is more heroic, more fanciful, and more remote from daily life. In his daydream, he is the hero, the superman, the orphaned prince. Unlike the child who is annoyed if his make-believe play is interrupted, the daydreamer is actually shocked back to reality by an interruption. The stuff of which daydreams are made often comes from mass media. Blazer (13) has described the role the different forms of mass media play in the setting and action of the daydream:

> *Modern civilization has provided us with "canned fantasies" in the form of movies, radio programs and television shows. No longer do we have to develop our own daydreams; we can have them brought to us by a flick of the electric switch or we can view them in technicolor at the neighborhood movie. Through the process of identification we are enabled to incorporate these manufactured dreams into our own repertory, where they serve as models for more dreams of the same type.*

Regardless of the setting or the action of the daydream, the central character is *always* the dreamer himself. Any other characters are subordinate, though their roles are related to his and affect his actions either adversely or favorably. If a teacher appears in a daydream, for example, she may be praising the child for his good work or criticizing him because his behavior disrupts the classroom. In any event, he is the most vivid and most significant character on the daydream stage.

While daydreaming may begin early—and it does in bright children—it reaches a peak during puberty. It is a favorite form of entertainment among older children when they are bored or restricted in other play.

Themes of Daydreams. Although daydreams may have any imaginable setting and may relate to any activity, three major categories are most common and most popular in childhood. These are explained briefly in Box 13-4.

Normally, in well-adjusted children, conquering-hero daydreams predominate, though almost all well-adjusted children, at some time or other, engage in both suffering-hero and imaginary-invalid daydreams. In poorly adjusted children, on the other hand, suffering-hero and imaginary-invalid daydreams predominate.

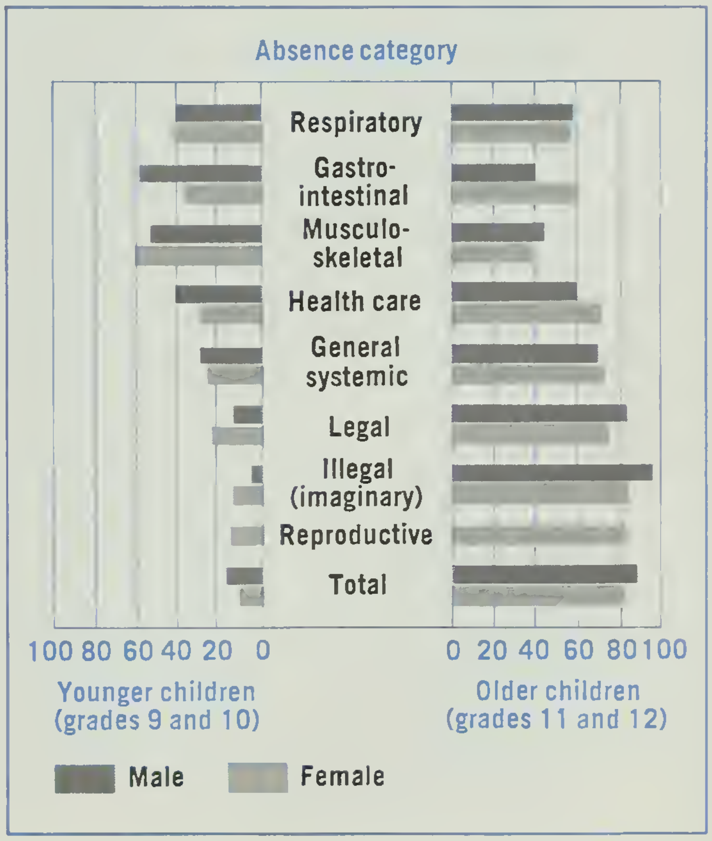
As children approach puberty and begin to develop antisocial attitudes and to feel below par physically, suffering-hero and imaginary-invalid daydreams become increasingly frequent and vivid. In fact, they are almost universal during puberty though, of course, every pubescent child also engages in conquering-hero daydreams. Figure 13-4, showing different physical causes for absence from school among children at different ages, emphasizes how common imaginary invalidism (referred to as "illegal cause") is as children approach puberty.

Variations in Daydreaming. Even though daydreaming is an almost universal form of creativity during the childhood years, there are marked variations in the frequency with which different children engage in it and in the kinds of daydreams they create. The factors that determine these variations are discussed in the following paragraphs.

Sex. Girls daydream more than boys at all ages. Girls' play activities are more restricted than boys', and this not only makes girls feel sorry for themselves —a source of motivation for suffering-hero daydreams —but also gives them more free time to create their daydreams.

Intelligence. Daydreaming parallels the development of intelligence in the child who is *well adjusted.*

Figure 13-4. Absence from school for imaginary illness ("Illegal") increases markedly during early adolescence among both boys and girls. (Adapted from K. D. Rogers and G. Reese, Health studies—presumably normal high school students. II. Absence from school, Amer. J. Dis. Children, *1965,* **109**, *9-27. Used by permission.)*



Since imagination develops more rapidly than reasoning ability, the older child can imagine himself in any role he wishes and not realize how incongruous this is. Gradually, as his reasoning ability develops, he begins to see the incongruity. In a *poorly adjusted child,* however, self-insight is not well developed, and he does not recognize the incongruity between reality and products of the imagination. Furthermore, because of his poor social adjustment, he spends much time alone; this encourages him to become self-bound—a tendency which fosters unrealistic thinking about himself.

Other Play Activities. The child who engages in active play with other children has relatively little time for daydreaming. By contrast, the child who spends little of his free time in peer play, owing to geographic isolation, lack of social acceptance, or a physical handicap, has plenty of time for daydreaming unless he is occupied with other play interests. As Singer has pointed out, it takes more "time and solitude to develop a rich imaginative life" than the active child has (127).

When the child's play interests are heavily centered around the mass media, he not only uses them for daydream material but, even more important, he develops the habit of deriving pleasure vicariously from observing the activities of others. This habit makes him more prone to daydreaming, where he derives enjoyment from identifying with a glorified unreal self.

Degree of Adjustment. A well-adjusted child usually daydreams only when he is unable to engage in other forms of play. The poorly adjusted child, by contrast, *substitutes* daydreaming for peer play or constructive play. Poorly adjusted children engage in suffering-hero daydreams more than well-adjusted children because in such daydreams they see themselves as right and others as wrong. This frees them from any feeling of guilt or inadequacy they might have for not achieving the social acceptance they crave.

Evaluation of Daydreaming.

Daydreaming is so widespread and so satisfying in childhood that an evaluation of its effects on personal and social adjustments is in order. In the evaluation given below, it will become apparent that the obstacles daydreaming poses to good adjustment far outweigh its aids.

Aids to Adjustment. Daydreaming is, without doubt, a source of satisfaction for *all* children, but especially for those who are unhappy with their real selves and their real roles. For them, escape into the daydream world is one of the bright spots of the day. In the private world of the daydream, everything goes as they want it to go. The daydream is thus an important *wish-fulfillment* experience.

In this secret world, the child can get the *excitement* he rarely finds in real life. Even the pleasure he derives from identifying with movie and television characters falls far short of the satisfaction he gets from being the center of excitement in his daydreams.

Daydreaming often provides an *emotional catharsis* for the child (see Chap. 9). By fighting imaginary battles with those who anger him or by overcoming the sources of fear that make him timid and ashamed of himself in real life, the daydreamer can rid himself of pent-up emotions or of emotions which—if overtly expressed—would win social disapproval.

If daydreaming could be counted on to *motivate* real achievement, it would be a worthwhile activity in the child's life. Unfortunately, it is usually a substitute for achievement rather than a source of motivation. Blazer has written, "Fantasy serves as a substitute for the attainment of goals which would be satisfying, but which are either socially disapproved or are, in the estimation of the individual, beyond his reach" (13).

Obstacles to Adjustment. Daydreaming is one of the most dangerous forms of play, if not the most dangerous, because it can so easily become a habitual method of escaping from an unpleasant reality. *Physically,* it is harmful to the well-being of a child to loll around and daydream instead of engaging in play which exercises the body. Also, daydreaming often gives rise to a strong emotional state which upsets body homeostasis.

The *psychological* damage of daydreaming is far more serious than the physiological. The child who derives enough satisfaction from his daydreams to prefer them to other play soon develops a romanticized concept of himself which is far removed from reality. This multiplies the adjustment problems that led him into excessive daydreaming in the first place. When the child engages in suffering-hero daydreams, they tend to exaggerate an already existing belief that "no one loves me" and to build up antisocial attitudes that intensify the child's poor adjustments.

Just as a habitual escape into daydreams leads to poor personal adjustment, so does it lead to poor *social adjustment.* The daydreamer rarely has good self-insight. Unable to see himself as he is, he cannot understand why people do not accept him, and he shows his resentment in his treatment of them. Feeling trapped, the child makes poorer and poorer social adjustments as time goes on.

How Much Daydreaming Is Healthy? The habitual use of daydreaming to escape reality and bolster the ego is extremely damaging to personal and social adjustments, but this does not justify saying that *all* daydreaming is bad. In fact, it can be said that too little daydreaming is as unhealthy as too much.

If a child—or an adolescent or adult—never daydreams, he is deprived of the pleasure daydreaming can bring to a life that is not entirely satisfying. Equally important, everyone needs some morale booster when he is discouraged and when his attempts to achieve success have failed or have gone unrecognized. Seeing himself as a conquering hero can motivate him to continue trying until he finally reaches his goal. Without such a morale booster, he might let his anxieties and frustrations get so strong a hold on him that they would dominate his life.

Children who daydream too little—and they are in the minority—may not have the intellectual capacity to imagine things that are not actually happening, or they may not have the knowledge from which daydreams can be fashioned. Others may be kept so busy from the time they waken in the morning until they go to bed at night, with "extras" imposed by ambitious parents or by parents who need their help, that they have little free time for mental play.

If daydreaming is indulged in with moderation and if the child is able to get enough satisfaction from real life that he does not seek refuge in the world of fantasy whenever things are not to his liking, there is no reason to try to deprive him of this source of satisfaction. As Kuhlen has pointed out, "It would be incorrect to assume that all daydreaming or fantasy is fraught with psychological dangers; again it is a matter of the extent to which it is engaged in" (77).

As a rule of thumb, adults can determine if the child is engaging in daydreaming either too much or too little by observing his behavior and attitudes. If, when he is by himself, he usually spends his time in a solitary play activity, especially something constructive, this is not indicative of an unhealthy attachment to daydreaming. On the other hand, if he normally spends hours at a stretch in isolation, doing nothing but looking into space, and if he shows a strong preference for this kind of occupation, there can be no doubt that his daydreaming has reached an unhealthy stage.

The child who must always be on the go and who is never happy when alone has probably developed an unhealthy antidaydreaming attitude. While he may not verbalize his feelings, there is reason to believe that he has learned, from past experiences, to feel guilty about daydreaming and to regard it as a waste of valuable time, as the adults in his environment have probably repeatedly told him it is.

In addition to the amount of time involved, there is a second criterion of how healthy or unhealthy daydreaming is. The kind of daydream that predominates is also important. Even though all children, at some time or other, engage in every kind of daydream, those who are extraordinarily attached to the suffering-hero or the imaginary-invalid categories will be most damaged psychologically. Children will be better adjusted, both socially and personally, if their daydreaming helps them gain self-confidence and self-assurance than if it fosters the belief that they are inadequate and inferior.

WHITE LIES

A very common expression of creativity among young children is the telling of "white lies"—often referred to as "tall tales." The white lie of childhood is very different from lying as adults think of it. A white lie is a falsehood told by a person who actually believes it to be true; he has no intention of deceiving others and no motivation to do so. He *believes* what he says because it is so vivid and seems so realistic to him that it must be true.

A "lie," by contrast, is a falsehood told with the deliberate intent to deceive. The child who resorts to lies often does so to avoid punishment or criticism for something he knows is forbidden or disapproved. Occasionally, he uses lies to impress others and, as such, lying is a form of self-aggrandizement rather than self-protection. Whatever motivates him, the child is fully aware that his lies are untrue.

Origin of White Lies. Many white lies originate in daydreaming. When the child, in his daydream world, sees himself doing things he would like to do in real life, the ego satisfaction he receives from the daydream helps to reinforce his belief that he actually did these things.

If, in addition to his daydreams, the child is encouraged to endow inanimate objects with life qualities and is told stories or sees pictures of objects or animals doing and saying things that people in real life do or say, he is likely to believe that they actually were or could be real. This may make him more white-lie prone.

There is some evidence that white lies reach their peak of frequency and intensity between the ages of 4 and 5 years and then wane rapidly as the child's reasoning improves and his knowledge increases. It is also likely that the child's environment and the way significant people in his life react will influence his behavior. Normally white lies are infrequent after the age of 6.

Distinguishing between White Lies and Lies. To evaluate the effects of white lies and lies on personal and social adjustments, one must know what role they play in the child's life. Fundamentally, the difference between the two is that white lies are used for self-aggrandizement and lies for self-protection. The child who tells a white lie exaggerates and embroiders reality because he has discovered that this focuses attention on himself and raises his prestige. Telling his mother that he has just seen a lion on the street has more attention value than telling her he saw a dog. And he may actually believe that a lion was on the street because he just saw one on the television screen or in a picture book.

The child uses lies mainly for self-protection or to protect others who are significant in his life. He may lie about a broken object to avoid a scolding or punishment or to protect a sibling or a playmate. Occasionally a child intentionally lies in his boasting, claiming that he has done things which will win admiration, but lying for the purpose of self-aggrandizement is far more common among adolescents and adults than among children.

Effects of White Lies. There is no evidence that white lies contribute to good personal or social adjustments. Whether they will be detrimental and how detrimental they will be will depend largely on how adults or others who are significant in the child's life react.

Adults often regard a child's white lies with amused tolerance. They may even encourage a child to tell tall tales because they are "cute" or amusing. The danger in this kind of adult reaction is that the child interprets it to mean that people approve of his telling white lies. He is not, therefore, motivated to examine critically what he has said to determine whether he imagined it or whether it actually happened. This adult reaction also encourages him to exaggerate whatever he says, because that raises its attention value. Later, boasting and exaggerating may become habitual. As noted in the chapter on speech, neither of these leads to social acceptance.

A second common adult reaction to white lies is to *regard them as real lies* and to assume that the child is trying to deceive. This reaction stems from the adults' failure to realize that young children are mentally too immature to be able to distinguish between what they imagine and what actually happens. Since adults feel that a child who lies will make poor adjustments to life, they take punitive steps to prevent the behavior from becoming habitual. Whatever punitive action is taken, the child who is made to feel guilty and ashamed may develop a generalized feeling of guilt about *any* form of imaginative thinking. Adult disapproval may be reinforced by the reactions of older children who also fail to realize that the young child is often incapable of distinguishing imaginary from real experiences. Such unfavorable reactions may make the child feel that imagination itself is wrong. This will curb any natural ability he may have to be creative.

The *third* and most wholesome adult reaction to white lies is to recognize them as natural in early childhood but a potential source of social rejection. This reaction should be accompanied by guidance to help the child analyze what he has said to determine whether he actually experienced it or just imagined it. Such an approach will help the child to become self-critical without being stifled by feelings of guilt.

HUMOR

Humor has two aspects: the ability to perceive the comic and the ability to produce it. Both aspects can add to social acceptance, because they help to create the impression that one is fun to be with and is a good sport. The young child learns the value of humor from his contacts with others.

Some forms of humor can be produced only by persons with a high level of intelligence but most of the forms that have great appeal to children can be created by anyone of normal or even slightly below normal intelligence. They require divergent thinking, which enables the producer to perceive new ways to combine previously learned material into patterns that others will regard as humorous. They do not require the production of completely new material.

The creation of humor also requires a knowledge of the kind of situation that others perceive as comic and a motivation to turn one's creative energies into channels that will result in humorous patterns.

Knowledge of what others regard as comic comes partly from observation of what people laugh at in real-life situations and partly from observation of people's reactions to the comic in the mass media. A child, for example, observes that almost everyone laughs when a person slips and falls on a banana peel and that they laugh even harder when the person in the predicament is someone who is regarded as superior because of his age or position. He discovers what makes people laugh from reading the comics, from stories the parent or teacher reads, and from what he sees on the movie or television screen.

The child who wishes to win social acceptance has a strong *motivation* to learn to produce humor as an aid to achieving that goal. He is willing to spend time and energy discovering what makes people laugh and creating humor that will gain their approval. Without this motivation, he might turn his energies into other creative pursuits that would satisfy a need for personal achievement rather than social acceptance.

Creative Forms of Humor. Humor takes many forms, ranging from the simple to the complex and from the crude to the subtle. In Box 13–5 are given some of the most common outlets for humor creativity among American children today. The list shows that children's humor is largely dependent upon their observation of what makes others laugh. The creative element comes from the ability to take this information from past experiences and apply it to new situations. The child who sees a clown getting a laugh when he trips over his oversized shoes, for example, may paddle around in his father's shoes, trip over his feet, and get a laugh from his age-mates.

In spite of the similarity between the child's models and his own humorous productions, these productions are creative *for the child* because he puts together in a new form what he has learned from past experiences. And, as was stressed earlier in this chapter, the criterion of creativity is not whether the production is original in the sense that it has never appeared before, but rather whether it is original *for the child.*

Evaluation of Humor Production. The child who is able to make others laugh or who is able to put others in an inferior position will develop self-confidence and self-assurance. On the surface, one might conclude that humor production is an aid to personal adjustment.

One must look below the surface, however, to see if this form of creativity leads to unfavorable social reactions that will counteract the aid it might be to personal adjustment. While almost all humorous patterns are at first greeted with laughter and the humor producer receives initial favorable social reactions, later reactions may be quite the reverse.

The child who can make his classmates laugh by clowning or "cutting up," for example, may soon discover that he is regarded as a "pest." Similarly, the first reaction to an off-color joke may appear to be favorable, but if it causes embarrassment to those who hear it, they will not have a high regard for the person who told it.

Three conditions often lead to unfavorable social reactions toward humorous productions. *First,* any humor that causes annoyance or interference with what others want to do will lead to social judgments that the creator of the humor is a pest. *Second,* humor that embarrasses or humiliates another person, especially when he is unable to retaliate, is regarded as poor sportsmanship. And *third,* humor that is repeated without enough variation to give it a touch of orig-

Box 13–5

COMMON FORMS OF HUMOR PRODUCTION

- Punning, or play on words by twisting their meanings or pronunciations
- Caricature drawings of people or animals doing humorous things
- Mimicry of the speech, singing, mannerisms, or actions of people or animals
- Jokes and smutty stories mainly about tabooed subjects, such as sex, or about people in authority
- Slips of the tongue, often intentional
- Stunting or doing "silly" things
- Dressing up to produce an incongruous appearance
- Clowning or "cutting up"
- Horseplay or "roughhousing" with peers
- Practical jokes to put others in a predicament
- Sarcasm or verbal caricatures of others

inality will lead others to think that the humorist is not very original or funny after all.

A personal example will illustrate this point. When the writer was talking to a class of third graders, one of the youngsters held up his hand to ask a question. He began by saying, "Dr. Hislock," and then added, with apparent though, to the writer, studied embarrassment, "I mean Dr. Hurlock," to cover up what he wanted his classmates to think was a slip of the tongue. Understandably, this was greeted with a roar of laughter.

Twice more during the same class period, the youngster made the same slip of the tongue and twice more he tried to pretend that it was accidental and that he was embarrassed. On the first repetition, the laughter from his classmates was halfhearted. On the second, it was barely a ripple, and one of his classmates commented sarcastically, "Aw, turn off the record. We've heard it before."

ASPIRATIONS FOR ACHIEVEMENT

Left to their own devices, most children would live in the present and let the future take care of itself. But they are not left to their own devices. Even before the child enters school, parents, relatives, and family friends ask him what he is planning to do when he grows up. They regard him as ambitious if he states that he wants to be "President of the United States" and as courageous if he says that he wants to "be an astronaut and walk on the moon."

In a culture which provides vast opportunities for its members to be and to achieve what they want, it is understandable that children at an early age would be subjected to pressures to create aspirations for the future. Aspirations, it is believed, motivate children to take advantage of the opportunities parents and society provide.

Social pressures to plan for the future are reinforced by competition with members of the peer group in play and schoolwork. As the child compares what he can do with what his peers do, he adds new meaning to his aspirations and puts new emphasis on the creation of aspirations that are both ego satisfying and admired by members of the social group. Thus, forming aspirations becomes an important area of creativity in the child's life.

Meaning of Aspiration.

To the layman, "aspiration" is synonymous with "ambition." It suggests that the person is not only planning to better himself but is carrying out this plan in real life. In the strictest sense, as used by the psychologist and defined in standard dictionaries, ambition means a desire for honor, power, or attainment. By contrast, aspiration means a longing for what is above one, with advancement as its goal. The subtle distinction between the two terms is that aspiration emphasizes the desire to improve or to rise above one's present status, while ambition stresses the end result—the attainment of power, honor, or some achievement.

If aspiration and ambition were synonymous, and meant honorable attainment, a person would be satisfied if his achievements were recognized and applauded by others. A child, for example, would be satisfied if his parents praised him for the block house he constructed. If, on the other hand, the desire to improve or to have what is above one is taken into consideration, the child would not necessarily be satisfied with his block house just because his parents praised him for it. Instead, he would be satisfied only if his block house met with the standard of achievement he set for himself. This distinction is important because it helps to explain much of the dissatisfaction children—as well as adolescents and adults—experience in connection with their achievements and why, as a result, aspirations play such a large role in personal and social adjustments.

Varieties of Aspirations.

Aspirations vary not only in strength but, even more important, in kind. They may be *positive* or *negative*. In the former, the emphasis is on winning success or doing better than one has done before, while in the latter, the emphasis is on avoiding failure. *Immediate* aspirations are goals the person sets for his immediate future—today, tomorrow, next week, or next month—while *remote* aspirations are goals set for the future, such as "when I grow up."

Childhood aspirations are likely to be *unrealistic* because the child's knowledge and experience are limited. The child is unable to assess his abilities accurately enough to know what he can and cannot do. This prevents him from checking his divergent thinking with facts; it gives his imagination free rein. Some aspirations relate to what the child wants *to be* and some to what he wants *to accomplish*. The former are usually called "ideal self-concepts"—to be discussed in the following section—and the latter are called "aspirations for achievement"—to be discussed below.

Some aspirations are *verbalized* by the child and some are not. Aspirations for achievement are more likely to be verbalized than are ideal self-concepts.

Verbalizing aspirations for achievement, the child discovers, leads to favorable social reactions; he is regarded as ambitious. Verbalizing ideal self-concepts, by contrast, often leads to unfavorable reactions; the child is viewed as conceited or, as his peers put it, "He has a swelled head."

Development of Aspirations for Achievement. Aspirations for achievement are influenced more by environmental factors than by personal factors. Some environmental influences encourage the development of immediate aspirations and some encourage remote aspirations; some foster positive aspirations while others foster negative aspirations; some motivate the child to be realistic, and others, unrealistic.

Box 13–6 lists the environmental and personal factors that most affect the creation of aspirations for achievement. In early childhood, before the child is old enough to know what his abilities, interests, and values are, his aspirations are largely shaped by his environment. As he grows older and is more aware of his abilities and interests, personal factors have a greater influence, but many of his aspirations—his values, for example—are still environmental in origin.

Evaluation of Aspirations for Achievement. On the *positive* side, aspirations for achievement are important aids to personal and social adjustment. Personally, it is ego inflating to a child to think that he will achieve goals which are highly valued by the social group. His aspirations motivate him to do all he can do to achieve the goals he sets for himself. In addition, they serve as guidelines to direct his energies into channels that will make attainment of his goals possible.

Aspirations for achievement aid social adjustments by giving others the impression that the child is a serious, conscientious person instead of an impractical dreamer. Even when his achievements fall below the group's expectations, most people give the child

Box 13–6

FACTORS INFLUENCING ASPIRATIONS FOR ACHIEVEMENT

Personal Factors	*Environmental Factors*
▪ The child's wishes for what he wants to achieve ▪ Personal interests, which influence the areas of the child's aspirations ▪ Past experiences, with successes strengthening the child's aspirations and failures weakening them ▪ The child's personality pattern, which influences both the kind and strength of his aspirations ▪ Personal values, which determine what aspirations are important ▪ The child's sex, with boys aspiring higher than girls ▪ Socioeconomic status, with those of the middle and upper groups aspiring higher than those of the lower groups ▪ Racial background, with those of minority-group status aspiring unrealistically high as a form of compensation	▪ Parental ambitions, which are higher for first-born than later-born children ▪ Social expectations which emphasize that those who are successful in one area can be successful in *all* areas if they wish ▪ Peer pressures to set aspirations in areas important to the peer group ▪ Group emphasis on sex appropriateness of aspirations ▪ Cultural traditions that anyone can achieve anything he wishes if he tries hard enough ▪ Social values, which vary with area of achievement ▪ Mass media, which encourages achievement aspirations ▪ Social rewards for high achievement and social neglect or rejection for low achievement ▪ Competition with siblings and peers in the hope of showing one's superiority over them

credit for trying and judge him more favorably than they would if he gave the impression that he lacked goal orientation.

On the *negative* side, aspirations for achievement can lead to poor personal and social adjustment if they are unrealistically high or low. The child who aspires beyond his capacities will, inevitably, fall below his own expectations as well as those of others. As a result, he will think of himself as a failure and this will encourage others to judge him a failure. A child with unrealistically low aspirations is never satisfied with his achievements if he feels that he might have done better. Nor is the social group likely to judge him favorably if there is reason to believe that he is not trying to make the most of his abilities. The effect of unrealistic aspirations on the child's personality will be discussed in more detail in Chapter 18.

CONCEPT OF IDEAL SELF

The concept of the ideal self is an aspiration the child creates of what he would like to be, rather than what he would like to achieve. The latter has to do with aspirations of achievement, discussed above. The ideal self-concept includes what the child would like to look like —his *physical self-concept*—and what he would like his capacities to be—his *psychological self-concept.*

Like aspirations for achievement, the ideal self-concept may be for the present or for the future. If the self ideal is for the future, it is most likely to be unrealistic, because very few children are satisfied with themselves as they are. As their social horizons broaden to include people outside the home, both peers and adults, and as their interest in the mass media increases, they are constantly comparing themselves with ideal models and seeing their shortcomings. Thus their self-dissatisfaction grows.

Any child who is not completely satisfied with what he is will, at some time or other, create an aspiration of what he would like to be. Boys, on the whole, tend to have poorer opinions of themselves than girls, even though they try to compensate by making derogatory comments to and about girls. Boys, therefore, tend to be more active in the building of ideal self-concepts. Very bright children, owing to their better social and self insight, are more likely to recognize their weaknesses than the less bright; as a result, their aspirations for what they would like to be are developed earlier and are often more unrealistic.

Box 13-7

SOURCES OF IDEAL SELF-CONCEPTS

- Parents
- An older sibling whom the child hero-worships
- Teachers—at school, Sunday school, or private lessons in music, dancing, or skating
- Camp counselors
- Athletic coaches
- Gang leaders
- Neighbors or relatives who are young and glamorous
- School or college athletic heroes
- Professional athletes
- National heroes, mainly from the child's own country
- Actors and actresses on the movie or television screen
- Characters in literature or the comics

Development of Ideal Self-Concepts. The material from which the child creates an ideal self-concept comes mainly from his contacts, either directly or indirectly, with real people he admires and from the characters he observes in the mass media. Some of the most common sources are given in Box 13-7.

At first, the child identifies with people in his immediate environment. Later, he chooses models from more remote sources, such as the school, neighborhood, community, and the nation or even foreign nations. Fewer models come from literature than from movies, television, and newspapers, because the characters in literature seem less real than those on the screen or in a newspaper photograph. As the older child has more associations, both directly and indirectly, with people in positions of prestige, it is understandable that their influence becomes more important.

Changes in Ideal Self-Concepts. Throughout childhood, the ideal self-concept changes from time to time. There are two explanations. *First,* the child identifies with many different models, and as he shifts models, he revises his ideal self-concept. This naturally follows as he makes new social contacts and gains more understanding of what is socially approved and admired. The preschooler who wanted to be just like the policeman on his block learns as he grows older that bankers have more prestige in the eyes of the social group than policemen. He then begins to admire a friend of the family who is a banker and wants to be like him.

Second, as the child grows older, his ideal self-concept becomes less specific and more composite. The young child wants to be a carbon copy of some person he admires. Later, the ideal is a composite of traits, both physical and mental, which the child has admired in different people at different times. As the child has more experiences with people, as he becomes aware of social values, and as he becomes more skilled in evaluating other people, he finds it difficult to regard anyone as the paragon that he ideally wants to be. Consequently, he selects characteristics from different models and combines them into a model of his own.

When a girl, for example, finds that red hair has attention value and is highly admired by her peers, she wants to have red hair just like Mary Smith. Having heard people criticize Mary Smith's freckles, however, she wants to have a complexion like Mary Brown. Mary Brown has a beautiful complexion, and, as Mother says, "You could have one, too, if you didn't eat so much candy." She would choose the large, flashing eyes of her favorite actress as the model for her eyes and the tall, slender figure of her Sunday school teacher as the model for her figure.

In creating the composite model for his ideal self, the child draws upon some of the people he admired when he was younger as well as upon some in his present environment. No one who has ever served as his model loses out completely, though the influence may be slight or even unconscious. In the composite ideal self-concept *all* people who have served as a model for what the child wants to be continue to have an influence.

Evaluation of Ideal Self-Concepts. On the *positive* side, having an ideal self-concept gives hope to a dissatisfied child. It shows him that he can improve and be better satisfied with himself. It also acts as a guideline, showing him what he should do to achieve the result he wants. Having a model to imitate, he knows what he must change in his looks or behavior to make himself more like he wants to be.

If the model is a real person whose abilities and background are similar to his own, it can motivate the child in a realistic way. Unfortunately, such a model often lacks glamor and loses its appeal at an early age.

On the *negative* side, ideal self-concepts can be detrimental to good personal and social adjustments. If the concept is too unrealistic—which is especially likely when it is a composite of different models—it will *discourage* the child. Inevitably he will discover that he is unable to achieve his ideal. This will, in time, weaken his motivation to try to improve himself. At the same time, it will encourage daydreaming where with a minimum of effort he can be whatever he would like to be. It will also encourage him to project the blame for his failure onto his parents or others. Regardless of how he copes with his failure to achieve his ideal self, it will lead to poor personal and social adjustments.

If the child clings to a model which is inappropriate for him or which is disapproved of by the group, that, too, can lead to poor personal and social adjustments. The girl who clings to an ideal self modeled after a parent or teacher, for example, may find that her peers consider her immature if they have shifted to more glamorous models, such as society leaders or actresses.

Highlights of Chapter 13

1. Creativity is a process by which something new, whether an idea or an object in a new form or arrangement, is produced through divergent thinking.

2. Intelligence and creativity do not necessarily go hand in hand, though a high level of intelligence facilitates creativity.

3. The personality syndrome of the creative person includes many traits associated with independence, which is also characteristic of the person who engages in divergent thinking.

4. Creativity provides personal satisfaction as well as benefits for the group and for social progress.

5. Creativity appears first in the child's play, then spreads to other areas of life, and reaches a peak in the thirties.

6. The development of creativity is obstructed by authoritarian training and discouragement of fantasy in the home and school and by unfavorable social attitudes toward those who are creative. It is aided by favorable social attitudes that actively encourage and guide it whenever it appears.

7. Since tests for the discovery of creativity are few and often lack validity, subjective means of assessing the originality of the child's achievements must, of necessity, be used.

8. Expressions of creativity in childhood are at first mainly concentrated on play and are shown in animism and in dramatic and constructive play.

9. Imaginary companions—an early form of creativity—provide personal satisfaction for the lonely child, but they lack the socializing value of real companions.

10. Children's daydreams fall into three general categories: conquering-hero, suffering-hero, and imaginary-invalid daydreams. All of these provide personal satisfaction but usually play havoc with personal and social adjustments.

11 White lies are usually an outgrowth of animism and daydreaming. They are used mainly for self-aggrandizement, while lies are used mainly for self-protection.

12. The production of humor, ranging from simple play on words to clowning, is motivated by the child's desire to win social attention and approval. Nonetheless, it often leads to social disapproval and rejection.

13. During childhood, the creation of aspirations for achievement is motivated mainly by environmental forces. These kinds of forces may take the form of pressures exerted by family members, teachers, and peers.

14. The creation of an ideal self-concept comes at first from identification with a specific person the child wants to be like, and later from combining the characteristics of different people he admires into a composite.

Bibliography

1. Alamshah, W. H.: The conditions for creativity. *J. creat. Behav.,* 1967, **1,** 305-313.
2. Albert, R. S.: Genius: Present-day status of the concept and its implication for the study of creativity and giftedness. *Amer. Psychologist,* 1969, **24,** 743-753.
3. Altus, W. D.: Birth order and its sequelae. *Science,* 1965, **151,** 44-49.
4. Ames, L. B.: Children's stories. *Genet. Psychol. Monogr.,* 1966, **73,** 337-396.
5. Ames, L. B., and J. Learned: Imaginary companions and related phenomena. *J. genet. Psychol.,* 1946, **69,** 147-167.
6. Anastasi, A.: *Psychological testing.* New York: Macmillan, 1968.
7. Anderson, H. E., W. F. White, and J. C. Stevens: Student creativity, intelligence, achievement, and teacher classroom behavior. *J. soc. Psychol.,* 1969, **78,** 99-107.
8. Anderson, H. H. (ed.): *Creativity and its cultivation.* New York: Harper & Row, 1959.
9. Antonovsky, A.: Aspirations, class and racial-ethnic membership. *J. Negro Educ.,* 1967, **37,** 385-393.
10. Arasteh, J. D.: Creativity and related processes in the young child: A review of the literature. *J. genet. Psychol.,* 1968, **112,** 77-108.
11. Babbitt, N.: Happy endings? Of course, and also joy. *The New York Times.* Nov. 8, 1970.
12. Bayley, N.: Development of mental abilities. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1163-1209.
13. Blazer, J. A.: Fantasy and daydreams. *Child & Family,* 1966, **5,** no. 3, 22-28.
14. Boyd, N. A., and G. Mandler: Children's responses to human and animal stories and pictures. *J. consult. Psychol.,* 1955, **19,** 367-371.
15. Browman M. T., and M. C. Templin: Stories for younger children in 1927-29 and 1952-55. *Elem. Sch. J.,* 1959, **59,** 324-327.
16. Brown, J. L.: Precursors of intelligence and creativity: A longitudinal study of one child's development. *Merrill-Palmer Quart.,* 1970, **16,** 117-137.
17. Burgess, J. M.: Curiosity and play: Basic factors in the development of life. *Science,* 1966, **154,** 1680-1681.
18. Busse, T. V.: Child-rearing antecedents of flexible thinking. *Develpm. Psychol.,* 1969, **1,** 584-591.
19. Cantril, H.: A study of aspirations. *Scient. American,* 1963, **208,** no. 2, 41-45.
20. Chambers, J. A.: Beginning a multidimensional theory of creativity. *Psychol. Rep.,* 1969, **25,** 779-799.
21. Charlesworth, W. R.: Instigation and maintenance of curiosity behavior as a function of surprise versus novel and familiar stimuli. *Child Develpm.,* 1964, **35,** 1169-1186.
22. Christie, T.: Environmental factors in creativity. *J. creat. Behav.,* 1970, **4,** 13-31.
23. Cianciolo, P. J.: Children's literature can affect coping behavior. *Personnel Guid. J.,* 1965, **43,** 897-903.
24. Clark, P. M., and H. L. Mirels: Fluency as a pervasive element in the measurement of creativity. *J. educ. Measmt.,* 1970, **7,** 83-86.
25. Clautour, S. E., and T. W. Moore: Attitudes of twelve-year-old children to present and future life roles. *Hum. Develpm.,* 1969, **12,** 221-238.
26. Coleman, R.: Can creativity be predicted? *Psychol. Rep.,* 1969, **25,** 831-834.
27. Coller, M. J.: The psychological appeal in the Cinderella theme. *Amer. Imago,* 1961, **18,** 399-411.
28. Cottle, T. J.: Self concept, ego ideal and the response to action. *Sociol. soc. Res.,* 1965, **50,** 78-88.
29. Covington, M. V.: Promoting creative thinking in the classroom.

J. exp. Educ., 1968, **37**, 22–30.

30. Cowan, J. C.: How parents can foster creativity in their children. In W. B. Michael (ed.): *Teaching for creative endeavor.* Bloomington: Indiana University Press, 1968, pp. 330–341.

31. Cropley, A. J., and E. Feuring: Training creativity in young children. *Develpm. Psychol.,* 1971, **4**, 105.

32. Cross, H. J.: The relation of parental training to conceptual structure in preadolescence. *J. genet. Psychol.,* 1970, **116**, 197–202.

33. Crowne, D. P., L. K. Conn, D. Marlowe, and C. N. Edwards: Some developmental antecedents of level of aspiration. *J. Pers.,* 1969, **37**, 73–92.

34. Dalta, L. E.: Birth order and scientific creativity. *Sociometry,* 1968, **31**, 76–88.

35. DeCharms, R., and G. H. Moeller: Values expressed in children's readers: 1800–1950. *J. abnorm. soc. Psychol.,* 1962, **64**, 136–142.

36. Dennis, W.: Arab and United States children: Some psychological comparisons. *Trans. N. Y. Acad. Sci.,* 1960, series II. vol. 22, 589–605.

37. Dennis, W.: Creative productivity between the ages of 20 and 80 years. *J. Geront.,* 1966, **21**, 1–8.

38. Domino, G.: Identification of potentially creative persons from the Adjective Check List. *J. consult. clin. Psychol.,* 1970, **35**, 48–51.

39. Drevdahl, J. E.: Factors of importance for creativity. *J. clin. Psychol.,* 1956, **12**, 21–26.

40. Dreyer, A. S., and M. B. Wells: Parental values, parental control, and creativity in young children. *J. Marriage & Family,* 1966, **28**, 83–88.

41. Duncan, O. D., A. O. Haller, and A. Portes: Peer influences on aspirations: A reinterpretation. *Amer. J. Sociol.,* 1968, **74**, 119–137.

42. Eisenman, R.: Creativity and mental illness: A prevalent stereotype. *Percept. mot. Skills,* 1969, **29**, 34.

43. Field, S. C.: Longitudinal study of the origins of achievement strivings. *J. Pers. soc. Psychol.,* 1967, **7**, 408–414.

44. Foster, F. P.: The human relationships of creative individuals. *J. creat. Behav.,* 1968, **2**, 111–118.

45. Garai, J. E., and A. Scheinfeld: Sex differences in mental and behavioral traits. *Genet. Psychol. Monogr.,* 1968, **77**, 169–299.

46. Gardiner, H. W.: Self-discrepancy and frequency of daydreams: Replication with female subjects. *Percept. mot. Skills,* 1970, **30**, 970.

47. Golann, S. E.: Psychological study of creativity. *Psychol. Bull.,* 1963, **60**, 548–565.

48. Goldner, B. B.: *The strategy of creative thinking.* Englewood Cliffs, N. J.: Prentice-Hall, 1962.

49. Goodale, R. A.: Methods for encouraging creativity in the classroom. *J. creat. Behav.,* 1970, **4**, 91–102.

50. Goodnow, J. J.: Effects of active handling illustrated by uses for objects. *Child Develpm.,* 1969, **40**, 201–212.

51. Gowan, J. C., G. D. Demos, and E. P. Torrance (eds.): *Creativity: Its educational implications.* New York: Wiley, 1967.

52. Greenacres, P.: Play in relation to creative imagination. *Psychoanal. Stud. Child,* 1959, **14**, 61–80.

53. Gross, R. B., and M. Marsh: An instrument for measuring creativity in young children: The Gross Geometric Forms: *Develpm. Psychol.,* 1970, **3**, 267.

54. Guilford, J. P.: Creativity: Yesterday, today, and tomorrow. *J. creat. Behav.,* 1967, **1**, 3–14.

55. Guilford, J. P.: *Intelligence, creativity, and their educational implications.* San Diego, Calif.: R. R. Knapp, 1968.

56. Haller, A. O.: On the concept of aspiration. *Rural Sociol.,* 1968, **33**, 484–487.

57. Hammer, E. F.: Creativity and feminine ingredients in young male artists. *Percept. mot. Skills,* 1964, **14**, 414.

58. Harrison, F.: Aspirations as related to school performance and sociometric status. *Sociometry,* 1969, **32**, 70–79.

59. Havighurst, R. J.: *Human development and education.* New York: Longmans, 1953.

60. Haynes, E. D.: Imaginary companions and personality. Unpublished Master's thesis, Colorado State University, Fort Collins, Colo., 1970.

61. Helson, R.: Childhood interest clusters related to creativity in women. *J. consult. Psychol.,* 1965, **29**, 352–361.

62. Helson, R.: Personality characteristics and developmental history of creative college women. *Genet. Psychol. Monogr.,* 1967, **76**, 205–256.

63. Helson, R.: Effects of sibling characteristics and parental values on creative interest and achievement. *J. Pers.,* 1968, **36**, 589–607.

64. Henley, N. M.: Achievement and affiliation imagery in American fiction: 1901–1961. *J. Pers. soc. Psychol.,* 1967, **7**, 208–210.

65. Hess, A. L., and H. L. Bradshaw: Positiveness of self-concept and ideal self as a function of age. *J. genet. Psychol.,* 1970, **117**, 57–67.

66. Hill, K. T., and J. D. Dusek: Children's achievement expectations as a function of social reinforcement, sex of subject, and test anxiety. *Child Develpm.,* 1969, **40**, 547–557.

67. Hurlock, E. B.: The spontaneous drawings of adolescents. *J. genet. Psychol.,* 1943, **63**, 141–156.

68. Hurlock, E. B., and M. Burstein: The imaginary playmate: A questionnaire study. *J. genet. Psychol.,* 1932, **41**, 380–392.

69. Jacobson, L. I., J. J. Elenewski, D. S. Lordahl, and J. H. Liroff: Role of creativity and intelligence in conceptualization. *J. Pers. soc. Psychol.,* 1968, **10**, 431–436.

70. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

71. Jorgensen, E. C., and R. J. Howell: Changes in self, ideal-self correlations from ages 8 through 18. *J. soc. Psychol.,* 1969, **79**, 63–67.

72. Jourard, S. M.: *Personal adjustment,* 2d ed. New York: Macmillan, 1963.

73. Kallen, H. M.: "Creativity" today. *Philos. phenomen. Res.,* 1970, **30**, 428–435.

74. Kemmler, L.: Recent investigations concerning creativity. *Child Develpm. Abstr.,* 1970, **44**, no. 309.

75. Klinger, E.: Development of imaginative behavior: Implications of play for a theory of fantasy. *Psychol. Bull.,* 1969, **72,** 277–298.

76. Kogan, N., and F. T. Morgan: Task and motivational influences on the assessment of creative and intellective ability in children. *Genet. Psychol. Monogr.,* 1969, **80,** 91–127.
77. Kuhlen, R. G.: *The psychology of adolescent development,* 2d ed. New York: Harper & Row, 1963.
78. LaGrone, C. W.: Sex and personality differences in relation to fantasy. *J. consult. Psychol.,* 1963, **27,** 270–272.
79. Laurence, R., and B. Sutton-Smith: Novel responses to toys: A replication. *Merrill-Palmer Quart.,* 1968, **14,** 159–160.
80. Lehman, H. C.: *Age and achievement.* Princeton, N. J.: Princeton, 1953.
81. Lehman, H. C.: The psychologist's most creative years. *Amer. Psychologist,* 1966, **21,** 363–369.
82. Leib, J. W., and W. U. Snyder: Achievement and positive mental health: A supplementary report. *J. counsel. Psychol.,* 1968, **15,** 388–389.
83. Lembright, M. L., and K. Yamamoto: Subcultures and creative thinking: An exploratory comparison between Amish and urban American school children. *Merrill-Palmer Quart.,* 1965, **11,** 49–64.
84. Liberty, P. G., R. J. Jones, and C. McGuire: Age-mate perceptions of intelligence, creativity, and achievement. *Percept. mot. Skills,* 1963, **16,** 194.
85. Lichtenwalner, J. S., and J. W. Maxwell: The relationship of birth order and socioeconomic status to the creativity of preschool children. *Child Develpm.,* 1969, **40,** 1241–1247.
86. Lieberman, J. N.: Playfulness and divergent thinking: An investigation of their relationship at the kindergarten level. *J. genet. Psychol.,* 1965, **107,** 219–224.
87. Lovell, K.: Developmental processes in thought. *J. exp. Educ.,* 1968, **37,** 14–21.
88. Maccoby, E. E., W. C. Wilson, and R. V. Burton: Differential movie-viewing behavior of male and female viewers. *J. Pers.,* 1958, **26,** 259–267.
89. MacKinnon, D. W.: Assessing creative persons. *J. creat. Behav.,* 1967, **1,** 291–304.
90. Mackler, B., and F. C. Shontz: Life style and creativity: A review. *J. Psychol.,* 1964, **58,** 205–214.
91. Margolin, E.: Work and play: Are they really opposites? *Elem. Sch. J.,* 1967, **67,** 343–353.
92. Marksberry, M. C.: *Foundation of creativity.* New York: Harper & Row, 1963.
93. Marshall, H. R.: Relations between home experiences and children's use of language in play interactions with peers. *Psychol. Monogr.,* 1961, **75,** no. 5.
94. Massialas, B. G., and J. Zevin: *Creative encounters in the classroom.* New York: Wiley, 1967.
95. Maw, W. H., and E. W. Maw: Self-concepts of high- and low-curiosity boys. *Child Develpm.,* 1970, **41,** 123–129.
96. McHenry, R. E., and G. A. Shouksmith: Creativity, visual imagination and suggestibility: Their relationship in a group of 10-year-old children. *Brit. J. educ. Psychol.,* 1970, **40,** 154–160.
97. Mead, M.: Work, leisure, and creativity. *Daedalus,* 1960, **89,** 13–23.
98. Mednick, M. T., and F. M. Andrews: Creative thinking and levels of intelligence. *J. creat. Behav.,* 1967, **1,** 428–431.
99. Merenda, P. F., W. V. Clarke, H. Schulz, W. Strehse, and G. Winneke: Differences in perception of concept of ideal-self and ideal-person between American and German samples. *Percept. mot. Skills,* 1970, **30,** 783–786.
100. Michael, W. B. (ed.): *Teaching for creative endeavor.* Bloomington: Indiana University Press, 1968.
101. Milgram, N. A., and W. W. Riedel: Developmental and experiential factors in making wishes. *Child Develpm.,* 1969, **40,** 763–771.
102. Milne, A. A.: *Now we are six.* New York: Dutton, 1927.
103. Mooney, R. L., and T. A. Razik (eds.): *Explorations in creativity.* New York: Harper & Row, 1967.
104. Moore, A. D.: *Invention, discovery, and creativity.* Garden City, N. Y.: Doubleday, 1969.
105. Moore, T.: Realism and fantasy in children's play. *J. child Psychol. Psychiat.,* 1964, **5,** 15–36.
106. Munz, D. C., A. D. Smouse, and G. Letchworth: Achievement motivation and ordinal position of birth. *Psychol. Rep.,* 1968, **23,** 175–180.
107. Nahinsky, I. D.: The self-ideal correlation as a measure of generalized self satisfaction. *Psychol. Rec.,* 1966, **16,** 55–64.
108. Nash, H., and D. B. Harris: Body proportions in children's drawings of a man. *J. genet. Psychol.,* 1970, **117,** 85–90.
109. Nichols, R. C.: Parental attitudes of mothers of intelligent adolescents and creativity of their children. *Child Develpm.,* 1964, **35,** 1041–1049.
110. Noble, G.: Film-mediated aggressive and creative play. *Brit. J. soc. clin. Psychol.,* 1970, **9,** 1–7.
111. Norbeck, E.: Human play and its cultural expression. *Humanitas,* 1969, **5,** no. 1, 43–55.
112. Oden, M. H.: The fulfillment of promise: 40-year follow-up of the Terman gifted group. *Genet. Psychol. Monogr.,* 1968, **77,** 3–93.
113. Otto, H. A. (ed.): *Explorations in human potentialities.* Springfield, Ill.: Charles C Thomas, 1966.
114. Pearce, C.: Creativity in young science students. *Except. Children,* 1968, **35,** 121–126.
115. Peller, L. E.: Daydreams and children's favorite books. *Psychoanal. Stud. Child,* 1959, **14,** 414–433.
116. Pressey, S. L.: Concerning the nature and nurture of genius. *Scient. Mon.,* 1955, **81,** 123–129.
117. Pulaski, M. A. S.: Play as a function of toy structure and fantasy predisposition. *Child Develpm.,* 1970, **41,** 531–537.
118. Ray, W. S. (ed.): *The experimental pychology of original thinking.* New York: Macmillan, 1967.
119. Reese, H. W., and S. J. Parnes: Programing creative behavior. *Child Develpm.,* 1970, **41,** 413–423.
120. Reid, J. B., F. J. King, and P. Wickwire: Cognitive and other personality characteristics of creative children. *Psychol. Rep.,* 1959, **5,** 729–737.
121. Rogers, K. D., and G. Reese: Health studies: Presumably normal high school students.

II. Absence from school. *Amer. J. Dis. Children,* 1965, **109**, 9–27.

122. Rubenstein, J.: Maternal attentiveness and subsequent exploratory behavior in the infant. *Child Develpm.,* 1967, **38**, 1089–1100.

123. Sadler, W. A.: Creative existence: Play as a pathway to personal freedom and community. *Humanitas,* 1969, **5**, no. 1, 57–79.

124. Safilios-Rothschild, C.: "Good" and "bad" girls in modern Greek movies. *J. Marriage & Family,* 1968, **30**, 527–531.

125. Schramm, W., J. Lyle, and E. B. Parker: *Television in the lives of our children.* Stanford, Calif.: Stanford, 1961.

126. Shaffer, L. F., and E. J. Shoben: *The psychology of adjustment,* 2d ed. Boston: Houghton Mifflin, 1956.

127. Singer, J. L.: *Daydreaming: An introduction to the experimental study of inner experience.* New York: Random House, 1966.

128. Singh, S. P.: Creative abilities: A cross-cultural study. *J. soc. Psychol.,* 1970, **81**, 125–126.

129. Smith, E. E., and H. L. White: Wit, creativity and sarcasm. *J. appl. Psychol.,* 1965, **49**, 131–134.

130. Solomon, D.: The generality of children's achievement-related behavior. *J. genet. Psychol.,* 1969, **114**, 109–125.

131. Sontag, L. W., and J. Kagan: The emergence of intellectual achievement motives. *Amer. J. Orthopsychiat.,* 1963, **33**, 532–534.

132. Sperling, O. E.: An imaginary playmate representing a prestage of the superego. *Psychonal. Stud. Child,* 1954, **9**, 252–258.

133. Staffieri, J. R.: Birth order and creativity. *J. clin. Psychol.,* 1970, **26**, 65–66.

134. Stone, L. J., and J. Church: *Childhood and adolescence,* 2d ed. New York: Random House, 1968.

135. Sutton-Smith, B.: Role Replication and reversal in play. *Merrill-Palmer Quart.,* 1966, **12**, 285–298.

136. Sutton-Smith, B.: Novel responses to toys. *Merrill-Palmer Quart.,* 1968, **14**, 157–158.

137. Taylor, C. W. (ed.): *Creativity: Progress and potential.* New York: McGraw-Hill, 1964.

138. Terman, L. M., and M. H. Oden: *Genetic studies of genius.* V. *The gifted group at mid-life.* Stanford, Calif.: Stanford, 1959.

139. Torrance, E. P.: *Guiding creative talent.* Englewood Cliffs, N. J.: Prentice-Hall, 1962.

140. Torrance, E. P.: Peer influences on preschool children's willingness to try difficult tasks. *J. Psychol.,* 1969, **72**, 189–194.

141. Uhes, M. J., and J. P. Shaver: Dogmatism and divergent-convergent abilities. *J. Psychol.,* 1970, **75**, 3–11.

142. Van den Daele, L.: A developmental study of the ego-ideal. *Genet. Psychol. Monogr.,* 1968, **78**, 191–256.

143. Wagman, M.: Daydreaming frequency and some personality measures. *J. consult Psychol.,* 1965, **29**, 395.

144. Wallach, M. A.: Creativity. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1211–1272.

145. Ward, W. C.: Rate and uniqueness in children's creative responding. *Child Develpm.,* 1969, **40**, 869–878.

146. Ward, W. D.: The withholding and the withdrawing of rewards as related to level of aspiration. *Child Develpm.,* 1969, **40**, 591–597.

147. Weingarten, S.: Reading as a source of the ideal self. *Reading Teacher,* 1954, **8**, 159–164.

148. Weinstein, M. S.: Achievement motivation and risk preference. *J. Pers. soc. Psychol.,* 1969, **13**, 153–172.

149. Werner, E. E., M. P. Honzik, and R. S. Smith: Prediction of intelligence and achievement at ten years from twenty months' pediatric and psychologic examinations. *Child Develpm.,* 1968, **39**, 1063–1075.

150. Windholtz, G.: Discrepancy of self and ideal-self and frequency of daydreams reported by male subjects. *Psychol. Rep.,* 1968, **23**, 1121–1122.

151. Wingfield, R. C.: Bernreuter personality ratings of college students who recall having had imaginary playmates during childhood. *J. child Psychiat.,* 1948, **1**, 90–94.

FORD FOUNDATION (CARLETON SARVER)

CHAPTER FOURTEEN Development of Understanding

THE KIND OF ADJUSTMENT the child makes to life is greatly influenced by his understanding of his environment, of people, and of himself. The child who understands the danger of automobiles, high places, and animals, for example, will be cautious; the child who lacks this understanding will not take proper precautions in a potentially dangerous situation and may be handicapped for life by some resulting physical disability.

If a child does not understand his limitations, whether they are physical or mental, he will not understand why people treat him as they do, and he will misinterpret their actions. A boy who does not recognize his physical limitations may feel that his lack of acceptance in a play group is due to discrimination, whereas it is actually due to his lack of play skills. If he does not come to understand the reason for his rejection, he will have little motivation to cultivate qualities that might increase his chances of acceptance.

Attitudes toward other people, toward things, and toward what is important in life are likewise dependent upon understanding. The child who does not understand that much of what he sees in movies or on television is merely make-believe is likely to develop unrealistic or false attitudes toward life.

One of the greatest values of understanding is that it enables a child to adapt to changes, both personal and environmental. Changes in body form at puberty, with their accompanying changes in behavior and interest, provide a good illustration. The child who understands that these changes occur in a predictable pattern and who knows *why* they are taking place will react with less fear, anxiety, or resentment than the child who does not understand.

How Understanding Develops

Understanding is not a hereditary capacity. Instead, it is based on knowledge which is acquired over a long period. When the baby is born, he has no understanding of his environment. As James said, he experiences the world as a "big, blooming, buzzing confusion" (60). He does not know the source of the discomfort which motivates him to cry. All he knows is that he is uncomfortable and that crying will bring help. As a result of maturation and learning, the child gradually begins to understand what he sees, hears, smells, tastes, and feels. His environment begins to be meaningful to him, and he begins to understand why he feels as he does.

ROLE OF MATURATION

Maturation provides a state of readiness to understand. Before understanding can progress, the child's brain and nervous system must develop, and the sense organs—used for perceiving—must become functionally mature. Understanding parallels mental growth. When mental growth is rapid, as in a very bright child, understanding is above the norm for the child's age level; in a dull child, understanding lags behind the norm. Similarly, a hierarchy of information-processing abilities, essential to understanding complex situations and behavior patterns, parallels the development of reasoning ability.

ROLE OF LEARNING

Learning is just as essential to understanding as maturation. The child must learn how to perceive differences in things he sees, hears, smells, tastes, and feels. Understanding begins when the child develops the ability to discriminate. At 2 weeks of age, for example, a baby will give momentary heed to a dangling ring, indicating that he notices something different in his environment. Later, his behavior indicates that he can discriminate differences in people and things. He will smile at the sight of people who are familiar or object and cry when they are unfamiliar. His understanding increases as his ability to perceive relationships between new and old situations increases. The more readily a child can associate new meanings with old experiences, the more meaningful the old experiences become and the more integrated they are in a system of interrelated ideas.

Role of Concepts in Understanding

Understanding is based on concepts. *Concepts* are not direct sensory data; instead, they result from the elaboration and combination—the tying together, or linking—of discrete sensory experiences. The common elements in diverse objects or situations serve to unite objects or situations into a single concept.

Concepts are *symbolic* in that they depend upon the properties of both absent and present situations and objects. Frequently concepts have an *affective* quality—an "emotional weighting"—which becomes a part of the concept and which determines how the individual feels about the person, object, or situation of which the concept is a symbol. This emotional weighting determines, to a large extent, the kind of *response* the person will make. Concepts are thus *complex* relationships which are continuously changing with experience and with the accumulation of new knowledge. Their complexity may be illustrated by a simple drawing that shows their composite nature (see Fig. 14-1).

Concepts may relate to *objects;* to *people;* to *qualities,* such as "good" and "dishonest"; or to *relationships,* such as "above" and "when." They may be *definite* ("one-half teaspoon of salt") or *indefinite* (a "generous helping of salt"). Concepts are not always verbalized. A child may, for example, have a clear and accurate concept of what "generosity" means but not know the word that describes this quality.

IMPORTANCE OF CONCEPTS

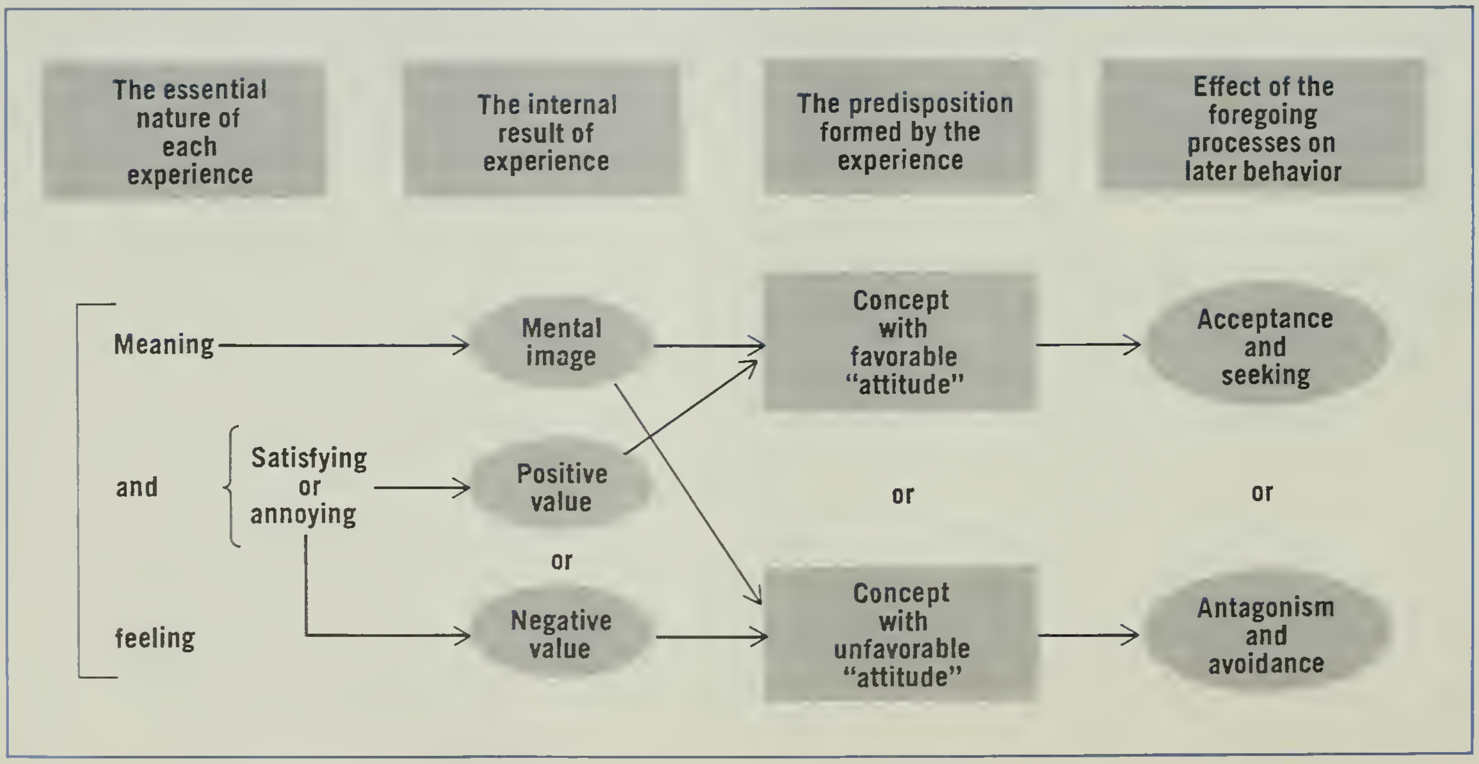
Concepts are important because they determine what one knows and believes and, to a large extent, what one does. If the concept includes a favorable attitude —or if it is emotionally weighted with a pleasant emotion—it will lead to positive actions in the form of acceptance and seeking. Concepts that are weighted with unpleasant emotions, on the other hand, lead to negative actions in the form of antagonism and avoidance. A child who has a favorable concept of "school," for example, will do better academic work and will have more favorable attitudes toward his teacher, his lessons, and everything connected with school than the child whose concept of "school" is unfavorable. The former will make better personal, social, and academic adjustments.

Equally important, the accuracy or inaccuracy of a child's concepts affects his understanding. The more concepts a child has, the better developed they are, and the more accurate they are, the greater his understanding. Simple reading material, for example, employing meaningful words and illustrated with relevant pictures, can be better understood by a young child than material containing many different words on a page, many different ideas, involved sentences, and abstract or unfamiliar words. Even the mechanical devices of capitalization and punctuation may give the child a hint of the relationship a strange word has to the words surrounding it.

How Concepts Develop

For the most part, early concepts relate to common experiences in daily life, and many of them are par-

Figure 14-1. The composite nature of a concept. (Adapted from A. D. Woodruff: Basic concepts of teaching. *Chandler, 1961. Used by permission.)*


The essential nature of each experience
The internal result of experience
The predisposition formed by the experience
Effect of the foregoing processes on later behavior
Meaning
and
feeling
Satisfying or annoying
Mental image
Positive value
or
Negative value
Concept with favorable "attitude"
or
Concept with unfavorable "attitude"
Acceptance and seeking
or
Antagonism and avoidance

tially or totally inaccurate. By the time the child reaches adolescence, he has built up a large store of concepts. In addition, he has added new meanings to old concepts and corrected many inaccuracies. Concept development is a long and difficult process because of the limited knowledge and experience children have. They cannot perceive an object or situation in the same way that an adult can, even though their sense organs are equally mature.

Russell has explained that some concepts help the child to develop other concepts: "Concepts of time help explain concepts of social custom. . . . Esthetic and humorous concepts grow in relation to social concepts" (114). For example, a child learns to perceive an older person's slipping and falling on a banana peel as funny because this act violates an already learned social concept about the dignity and respect accompanying adulthood. Similarly, the child who develops concepts of appropriate behavior and appearance for members of the two sexes can apply knowledge to the development of concepts of masculine or feminine beauty; he learns to think of beauty not as an abstract concept but in relation to his concept of what is sex appropriate.

If concepts are to be accurate and if the child is to develop adequate concepts to meet his needs for understanding the world in which he lives, three essentials must be fulfilled. These are listed and explained in Box 14–1.

SOURCES OF MEANING

Understanding develops according to a predictable pattern. As the child acquires new meanings from new sources, he adds them to old meanings previously learned. The ability to acquire meanings from new sources is dependent on the maturational readiness of the child. Since maturation is predictable, even though there are individual differences, it is possible to know at approximately what age a new source of meaning will come into use.

Sensory Exploration. At first, the baby discovers the meaning of the objects in his immediate environment through sensory exploration. Shortly after birth, he begins to look and listen, and later he smells, tastes, and touches everything within his grasp. He perceives meanings which fuse with meanings previously observed and cause strange and unfamiliar objects to become familiar.

Motor Manipulation. When motor coordination is sufficiently developed that the baby can handle things at will, beginning in the second half of the first year, motor manipulation supplements the information gained through sensory exploration. The baby discovers qualities such as smoothness, softness, and warmth. Too often, the "hands-off" policy, which many adults enforce, deprives the young child of one of his most valuable sources of information.

Questioning. As soon as the child is old enough to put words together, he begins to ask questions about things which arouse his curiosity. The "questioning age" begins around the third year and reaches its peak at approximately the sixth, but the child will continue to use this method of gaining information throughout the rest of his life. Its usefulness to him will depend upon the satisfaction he derives from it during the early years of childhood.

Pictorial Mass Media. What the child sees in pictorial mass media, especially comics, movies, and television, forms the basis for many of his concepts. If teachers or policemen are constantly depicted in a particular way, the child will come to think that *all* teachers or *all* policemen have the characteristics

Box 14–1

ESSENTIALS IN CONCEPT DEVELOPMENT

Ability to See Relationships

To be able to perceive meanings, the child must be able to see the relationship between new experiences and previous experiences. This ability begins to develop even before the baby is a year old and grows rapidly from then on. At every age, it is easier to see relationships accurately if new material has something in common with past experiences.

Ability to Comprehend Underlying Meanings

Children perceive things at their face value, missing any meaning that is not readily apparent. When meanings are subtle or figurative, even older children usually miss them. The child interprets the proverb "You can't teach an old dog new tricks" to mean exactly and literally what the words say.

Ability to Reason

To be able to understand accurately what he hears or sees, the child must use inductive thinking and sometimes even deductive and creative thinking. Since these mental abilities develop slowly, even older children often misinterpret what they observe.

he observes in the pictures. This is one of the common ways in which stereotypes develop.

Most pictorial mass media contain elements of unreality, even though they may be skewed toward reality. Therefore, the child is likely to develop concepts that are unrealistic.

Educational films and educational television serve to develop more realistic concepts. A child whose concept of "elephant" is based only on a distant view of an elephant in a zoo enclosure, for example, will derive a more accurate concept from a film about the elephant in its natural habitat.

Reading. Before the child learns to read, he builds up a store of meanings by looking at pictures, being read to, or having stories told to him. Even the simplest storybooks introduce new meanings into the child's life, and through careful observation of pictures, details of objects and persons which he formerly had not noticed become apparent to him. When his reading is supplemented by discussions with adults or by educational films in school, his understanding is greatly increased.

Acquiring new methods of gaining knowledge does *not* necessarily entail abandoning previously used methods. An adult may rely heavily on reading for the acquisition of knowledge, but he also uses questioning, motor manipulation, and sensory exploration.

FACTORS INFLUENCING CONCEPT DEVELOPMENT

Children are subjected to different influences, and so children of the same age and level of development will have different concepts. The most important factors influencing concept development are discussed below.

Condition of the Sense Organs. The sense organs are the channels through which sensory experiences pass in their path to the brain. Therefore, the condition and efficiency of the sense organs effect concept development. The child who is color-blind, for example, will perceive objects differently from the child with normal vision. Since children perceive things differently, the foundations on which their concepts are built differ.

Intelligence. Intelligence plays a far more important role in the *cognitive* than in the affective element of concepts. A bright child sees and understands aspects of a situation that a child of less intelligence does not, but this higher level of cognition does not necessarily affect the feeling tone or "emotional weighting" of the concept.

Opportunities to Learn. Since concepts are a product of learning, the child must have opportunities for learning if he is to develop concepts. The older the child, the more learning opportunities he has had. Consequently, chronological age influences conceptual ability. In a study of concepts of justice, it was found that the school-age child takes into consideration the person's reason for misbehavior, while the preschool child views the misbehavior at its face value and decides on that basis alone what a just punishment would be (29).

Some concepts, such as those of time and numbers, are general in a culture, whereas others, such as those of "doctor" and "mother" are specific. The child's specific concepts are greatly influenced by his family's socioeconomic status. The child's environment—whether it is rural or urban, for example—also influences his experiences and opportunities for learning, and thus will lead to variations in concepts.

Type of Experience. Early concept development is based on concrete experience and so the more direct the experience, the better the concept is likely to be. Later, many concepts are gained through vicarious experiences, especially those presented by factual material in books, in movies, and on radio and television.

Concepts related to familiar objects or to the child's experiences, such as concepts of clouds, of the flying of airplanes, or of the rising of bubbles in water, are acquired earlier than concepts relating to less familiar objects or situations, such as the functions of the heart and muscles, the meaning of gravitation, or the geological origin of hills and lakes.

Sex. Since children are trained, from earliest childhood, to think and act in a manner considered appropriate for members of their sex, this is bound to be reflected in the meanings they associate with different objects and experiences. To a boy, for example, the study of mathematics may be a steppingstone to a job; to a girl, it may be a "waste of time."

Not only do the cognitive elements of concepts often differ for boys and girls, but also the emotional weighting. Boys' concepts of poverty, for example, are likely to be realistic and factual, while girls' concepts are more heavily weighted with pity and emotional concern (33). Sex differences increase with age as training in playing socially approved sex roles increases, and so the concepts of boys and girls become more divergent as they grow older.

Personality. Every child views life from a frame of reference in which he plays the central role. Therefore, what the child thinks of himself and of his relationships with other people will determine what his frame of reference will be. If he is well-adjusted, he will view himself, his abilities, and his relationships with others realistically. If he is poorly adjusted, he is likely to build up an unrealistic concept of himself. These concepts will determine what sort of adjustment he makes to people and to life in general.

Box 14-2 summarizes some of the outstanding characteristics of children's concepts. It tells briefly how children view their world and perceive their relationship to it.

Misconceptions

Children's concepts are often erroneous. The child frequently misinterprets what he hears or what he observes. He may see, hear, smell, taste, or feel correctly but associate faulty meanings with what he observes. Or he may misinterpret the label associated with the concept. This is especially likely to happen when the label is verbal rather than written (27). If a person refers to "pause" in his work, for example, the child may think this refers to an animal's "paws," or reference to having "read" a book may be confused with a "red book."

In the early stages of concept learning, the child makes many errors. At first, his concepts are so vague that he cannot see the relationship between those which have elements in common. As a result, he cannot classify them into categories. With learning and experience, he makes fewer errors. For example, he shows less tendency to classify the living with the nonliving or animals with plants.

Box 14-2

CHARACTERISTICS OF CHILDREN'S CONCEPTS

Concepts Are Individualized

Since no two children have precisely the same intellectual abilities or the same learning experiences, no two will have identical concepts. Similar training and similar values, however, will lead to similar concepts.

Concept Development Follows a Pattern

As new meanings are associated with old, concepts change from simple to complex and from concrete to abstract. The time needed for these developmental changes depends on the child's intelligence and his learning opportunities.

Concepts are Hierarchical

As his concepts become more complex, the child attaches names to objects and to classes of objects, indicating his realization that they have elements in common as well as differences. The hierarchical structure of concepts is illustrated in Figure 14-2.

Concepts Develop from Undefined to Specific

The child first responds to the total situation rather than to any one part of it. Gradually, vague and undefined concepts develop into specific and differentiated concepts.

Concepts Develop from Specific to General

With experience, the child is able to distinguish partial elements of objects and to group together those which have common features. Figure 14-3 shows how this is done.

Concepts Are Emotionally Weighted

All concepts have some emotional weighting. This weighting is added as new and old meanings are combined. In general, concepts that are subjective—concerned with self or with objects, people, or situations related to self—are more heavily weighted with feeling tone than concepts that are more objective.

Concepts Are Frequently Resistant to Change

The more emotionally weighted a concept is, the more resistant it is to change. Such a concept is satisfying to the child and he clings to it until he develops another that gives him equal or greater satisfaction.

Concepts Influence Behavior

All concepts influence personal and social adjustments by influencing the quality of behavior. Favorable concepts lead to positive behavior; unfavorable concepts, to negative behavior.

CAUSES OF MISCONCEPTIONS

Errors in perception, resulting from the association of faulty meanings, may be traced to a number of causes.

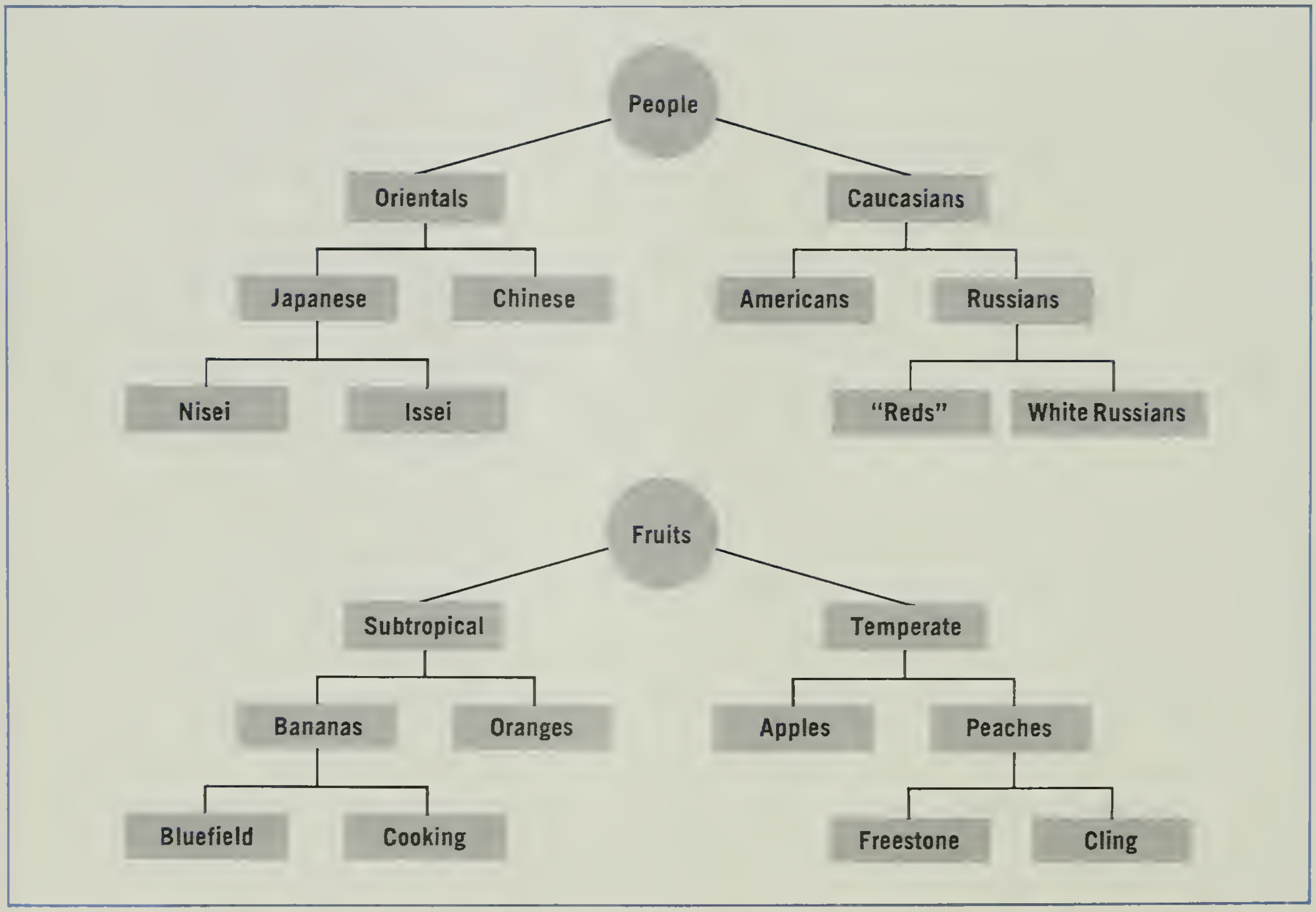
Incorrect Information. The child may have received incorrect information about the subject. When parents are not certain about the correct answer to a child's question, for example, they may make up an answer merely to satisfy his curiosity or to keep him quiet. On the other hand, they may give him information which they sincerely believe is correct but which is not. Sometimes they are preoccupied with other interests and do not hear the child's question correctly; they then answer it as they thought the child asked it. They give correct information about the question they thought the child asked but incorrect information about the question he actually asked.

If the child seeks information from siblings or peers, he has an even greater chance of getting incorrect or partially correct information. His information may also be faulty if he reads unauthoritative or out-of-date sources, such as old textbooks.

Limited Experience. Limited experience makes it impossible for the child to judge things accurately. This has been demonstrated in laboratory experiments of weight illusion. When a pound of cotton is placed beside a pound of lead, the child invariably says the pound of cotton is heavier because he judges weight in terms of size. If he is asked to pick them up and weigh them in his hands, he usually gets the opposite illusion because he does not realize that the *total* feel of the cotton must be balanced against the *concentrated* feel of the lead.

What is true of laboratory experiments is equally true outside the laboratory. Because of lack of critical attitude, resulting from limited experience and un-

Figure 14-2. The hierarchical structure of concepts. (Adapted from W. E. Vinacke, Stereotypes as social concepts, J. soc. Psychol., *1957,* **46,** *229-243. Used by permission.)*



developed intelligence, the child may readily associate completely wrong meanings with what he observes without realizing how incongruous the association is.

Gullibility. Gullibility is at the basis of many misconceptions. Children who have been brought up in authoritarian homes learn to believe that "mother knows best." This quickly spreads to the belief that *anyone older* than they or *anyone in authority* knows more than they do; as a result, they accept what is said without question. The more unsure children are of their social acceptance and the more anxious they are for group approval, the more gullible they will be.

Faulty Reasoning. In young children, reasoning ability has not developed enough to enable them to attack a problem in a critical manner. Furthermore, they have too little information on which to build accurate concepts about objects or conditions not present at the time.

While normal reasoning ability increases with age, lack of training or opportunity to use reasoning ability because of authoritarian training in the home or school will often cause the older child to reason inaccurately. When two objects or two situations are alike in one or more respects, he is apt to conclude that they are alike in *every* way. For example, if he has accepted the belief that *all* Scotsmen are "tight" about money and he knows that Mr. MacDougall has come from Scotland, he will conclude that Mr. MacDougall is "tight."

Vivid Imagination. In the development of different intellectual abilities, imagination outstrips reasoning. The young child does not have the check on his imagination that he will have later; he believes that what he imagines has actually happened. After seeing an elephant in a parade on television, he may believe that he saw the elephant on the street near his home. Similarly, purely imaginary ideas from his dreams or daydreams may seem so realistic that they are incorporated into his developing concepts. Many of the white lies of early childhood can be traced to this source (see Chap. 13).

Unrealistic Thinking. The child is encouraged to think unrealistically about things—including himself—

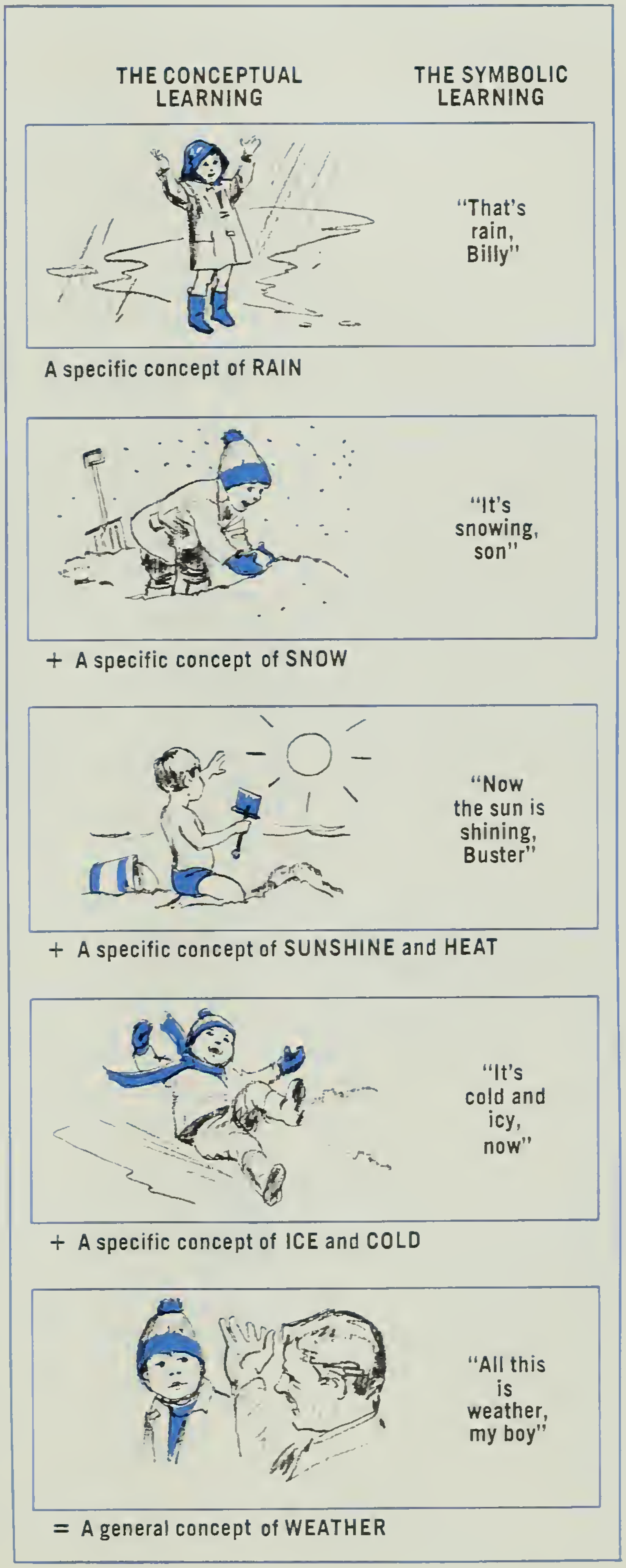
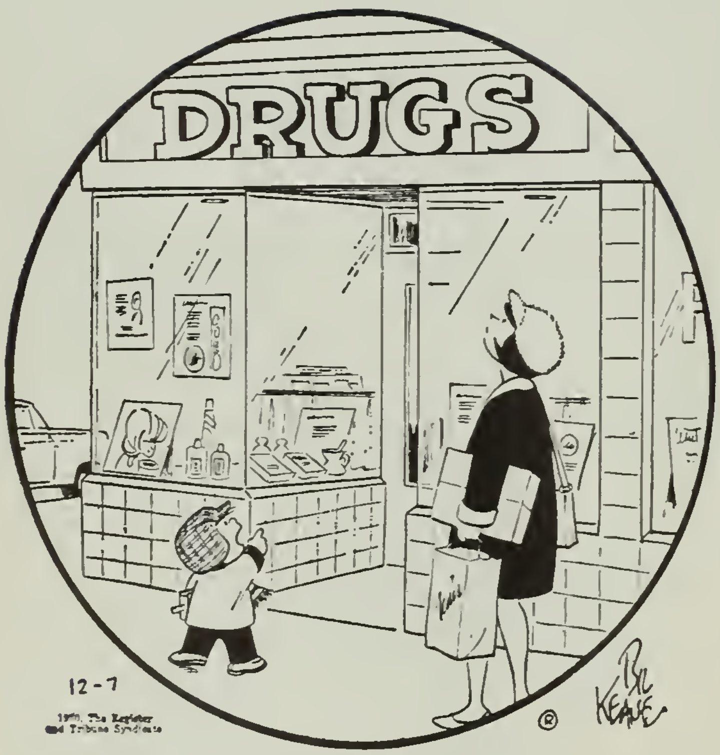

THE CONCEPTUAL LEARNING
THE SYMBOLIC LEARNING
"That's rain, Billy"
A specific concept of RAIN
"It's snowing, son"
+ A specific concept of SNOW
"Now the sun is shining, Buster"
+ A specific concept of SUNSHINE and HEAT
"It's cold and icy, now"
+ A specific concept of ICE and COLD
"All this is weather, my boy"
= A general concept of WEATHER

Figure 14-3. How specific concepts accumulate and make general concepts. (Adapted from A. D. Woodruff: Basic concepts of teaching. *Chandler, 1961. Used by permission.)*

by the stories he hears and later reads, by the scenes and actions he sees on movie and television screens, and by the comics. Even textbooks, Zimet has said, present people in a "falsely glamorized fantasy world" (152). Since most children prefer stories about things that *might* happen, books, comics, movies, and television programs often contain an element of unreality. The happenings are presented in such a way that the uncritical child believes they actually do happen, and he comes to believe that they could happen in his own life. Even as the child grows older, persistent exposure to unrealistic thinking in the mass media encourages him to continue to think unrealistically about life.

Misunderstanding of Words. Every concept sooner or later acquires a verbal label, and many of the child's misconceptions come from a misunderstanding of words. Even though a child's comprehension vocabulary at every age is larger than his use vocabulary, there are always gaps as well as errors in his understanding of words. Many children, for example, claim they know the meaning of such common words as "gown," "butterfly," "purple," or "dime," but when asked to tell specifically what these words mean, they show that they have misconceptions or only partially correct concepts of the meaning of the things for which these words serve as verbal labels. How this happens is shown in Figure 14–4.

Figure 14–4. Verbal labels are learned in relation to specific situations, objects, or people. (Adapted from Keane, "The Family Circus," the Philadelphia Evening Bulletin, *Register and Tribune Syndicate, Dec. 7, 1970. Used by permission.)*


DRUGS
12-7
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Bil Keane

"Oooh! I learned that word in school! We better tell the police!"

DANGERS OF MISCONCEPTIONS

Misconceptions are difficult to revise if they are permitted to persist. They therefore may have a long-lasting effect on the child's adjustments. In his schoolwork, the child is handicapped by misconceptions regarding words used by the teacher or in textbooks. If his concepts are limited or faulty, he may not be able to understand the teacher's explanations. Likewise, when reading for pleasure or watching movies or television, he will misinterpret what he hears or sees if his concepts of certain words are faulty or if he habitually views life in an unrealistic way.

Partial or total misconceptions affect the child's attitudes and, in turn, his behavior. If the child develops the concept that certain people, actions, or situations are "bad," without adequate reason for doing so, he will react to them in a negative way. If his concept were more accurate, and if he evaluated the people or situations as "good," as many others do, his reactions would be more favorable.

Social relationships are profoundly affected by misconceptions. The child who misinterprets what others say or do or who does not perceive his own and others' status in the group accurately is seriously handicapped (refer to Chap. 11). A common source of misconceptions that affect social relationships is the tendency to stereotype people. As was explained in Chapter 11, stereotyping is fostered by the comics, movies, and television. The child who groups people together because they have a common physical or personal characteristic will react to them as if they were alike in every way. He is thus likely to behave in a manner that will lead to poor social adjustments.

DEALING WITH MISCONCEPTIONS

The detrimental effect of misconceptions on the child's behavior and attitudes makes it unwise to ignore them or to assume that the child will automatically correct them as his knowledge and experience increase. Instead, the child needs guidance. Early guidance will ensure that the child associates correct meanings with people, objects, and situations from the start or will correct misconceptions as soon as they become evident.

Unless errors in concepts are corrected early, the association will become so firmly established through reinforcement that later correction will be difficult, if not impossible. While the *cognitive* aspect of a faulty concept can be corrected as the child gathers more accurate information, the *emotional* aspect is likely to be persistent. If a child is conditioned by an older sibling to think of arithmetic as a "hard" or "boring" subject, for example, he may readily change this concept when he finds it not so difficult as he had expected. But if he is conditioned to dislike arithmetic, it is far less likely that the emotional weighting of the concept can be so radically changed that he will like the subject, though he may be indifferent to it.

Subjective concepts are far more difficult to correct than objective concepts, primarily because the former have a greater emotional weighting than the latter. Since the emotional weighting gives the child satisfaction, he will not readily give up the concept even though he may be persuaded that, objectively, it is erroneous. The child who has an unrealistic concept of himself, for example, is not likely to accept a more realistic one that is less ego-satisfying.

It has been reported that erroneous *objective* concepts about people belonging to certain groups, such as "teacher" or "English," are much more difficult to correct than those relating to everyday objects or situations, such as "house," "table," "school," or "family," (138). In part, this may indicate that parents and teachers themselves have accepted the stereotypes about people or that they regard them as less harmful to personal and social adjustments than misconceptions about everyday objects and situations.

Some Common Concepts of Children

Each child's concepts are a reflection of his own personal and unique development. Some concepts, however, are so common among children in a given culture that they can be regarded as "typical." These include concepts of life and death, of causality, of space and weight, of numbers and time, of money, of beauty and of the comic, of the self, and of social relationships.

CONCEPTS OF LIFE

Because of the young child's limited experience and knowledge, he does not distinguish between living and inanimate objects. On the contrary, he believes, as primitive peoples do, that all objects have the same life qualities as the human being and are therefore animate. *Animism*, or the tendency to ascribe consciousness to inert objects is one of the outstanding characteristics of the young child's perception.

Origin of Animistic Beliefs. Adults often encourage children to develop and maintain animistic beliefs. Parents and other adults, for example, often *imply* that inanimate objects are animate. When an angry child rips a book, his mother is likely to say, "Poor book, you hurt him. Now go and tell him that you're sorry."

Mass media likewise contribute to animistic thinking among children. Children's *stories* tell about toys and animals that think and feel as people do (119). Many *movies* and *television* programs for children show animated toys, trees, houses, and other objects. The young child does not realize that such films are pure fantasy. The more he identifies with the objects or characters, the easier it is for him to believe that they have the same qualities he has (78).

Age of Animistic Thinking. Just how early a child begins to endow inanimate objects with life qualities is difficult to determine. His lack of verbal facility makes direct questioning impossible. However, one can make certain assumptions from his behavior. When a baby or young child tries to "magic" objects into moving by waving his hands at them, for example, one can conclude that he thinks they are capable of moving.

A number of studies have tried to discover when animism begins and how long it persists. In one of the most comprehensive and best-known studies, Piaget concluded that there were four successive stages in the animistic concepts of young children (102). These four stages and the ages Piaget has given for them are shown in Box 14–3.

Other studies have concluded that there are no clearly demarcated animistic stages through which children pass, but rather a gradual transition from one phase to another. Furthermore, children of the same age differ markedly; some adolescents may have concepts similar to those of children (25). These studies also show that children distinguish between "living" and "having life." Living is more often applied to inanimate objects than having life. When children say an object is "alive," they usually do not attribute sensory or functional characteristics to it. Thus their definition of alive differs from that of adults.

To children, alive usually means "active"; this is not animism in the true sense of the word (116, 122).

From kindergarten on, fewer and fewer children attribute life to inanimate objects (25, 75). In a study in which children were asked if all things that move are living, approximately one-third said "no" at 6 years of age; all said "no" by 11 years. As children reach school age, they become increasingly aware that movement is not the sole criterion of life (66).

CONCEPTS OF DEATH

Closely related to concepts of life are concepts of death. Children's concepts of death, Natterson and Kundson have reported, range from brutal destruction to liberation (96). Young children cannot comprehend the finality of death; they believe that the dead person or pet will return.

Between the ages of 5 and 9, children personify death. They regard it as inevitable but do not try to explain why it occurs. They are not likely to worry about death unless they feel anxious and insecure in their family relationships. Then they will worry about the death of a parent or some other family member, not themselves. Few children, unless they have experienced long or severe illness, think of death in relation to themselves. To the great majority, death is associated with old age, not with youth.

Box 14-3

PIAGET'S STAGES IN ANIMISTIC THINKING

Stage 1 (4 to 6 years)

Everything that moves in any way is regarded as conscious, even though it is stationary.

Stage 2 (6 to 7 years)

Consciousness is attributed only to things that can move. The sun and a bicycle are regarded as conscious, while a table and a stone are not.

Stage 3 (8 to 10 years)

The child makes an essential distinction between movement that is due to the object itself and movement that is introduced by an outside agent. Bodies that can move of their own accord, such as the sun or the wind, are looked upon as conscious, while objects that receive their movement from without, such as bicycles, are regarded as devoid of consciousness.

Stage 4 (11 years on)

Consciousness is restricted to plants and animals, or to animals alone.

The major factors responsible for children's concepts of death are discussed below.

Mass Media. In spite of parental desire to spare the child firsthand contact with death—even when a family member or a pet animal dies—he sooner or later has *secondhand* experiences with it through the mass media. In discussing the influence of mass media on children's concepts of death, Barclay (6) has commented:

> *The way that life is lived today children are exposed continually to ersatz examples of death on television which are either cold, bloodless and unmourned or violently reacted to in the most melodramatic manner possible. At the same time, news programs, newspapers and picture magazines show them graphic evidences of real death and of real reactions to it—some stricken, some apparently emotionless, a few smirkingly self-conscious. The adults close to a child rarely comment on such things. If the child is upset by death in a movie or television show, his parents reassure him that the upsetting incident was just "make believe." But he knows that at other times and other places it is surely real. What is the mystery? Why are adults reluctant to speak of this obviously important matter?*

The more the home, school, and neighborhood surround death with mystery, the more the child is forced to base his concepts of death on information he gets from mass media. What his concept will be will depend largely upon the kinds of mass media he enjoys and the programs or movies he prefers. If he looks at the pictures in newspapers or news magazines, he will often be limited to information about death from accident or murder. Concepts based on such sources will certainly not give him a wholesome understanding of death; in fact, they will often be heavily weighted with emotion, especially with fear.

Adult Reactions. The child's concepts of death are greatly influenced by adults' reactions to it. In their attempt to shield the child from grief or in their absorption with their own grief when a member of the family or a close friend dies, parents often overprotect or ignore the child. He is frightened and upset by the parents' reaction and resentful of their neglect. As

Barclay has explained, these circumstances not only affect the child emotionally but also color his concepts of death. The child who is "surrounded by gaunt-eyed adults who do not see you or hear a word that you say can magnify the idea of death's enormity almost beyond belief" (6).

Religious Training. The religious training the child receives at home, in Sunday school, or in church has a marked influence on his concepts of death. If he is told that "good children" go to Heaven where they will be eternally happy and where every wish will be granted, he will have little fear of death for himself or for those he loves *if* he believes they have lived "good" lives. However, the typical child is told more often that he is bad or naughty than that he is good. If he has learned to associate death with eternal punishment in Hell for those who are "bad," then his concept of death will be weighted with fear and other unfavorable emotions.

Children who come from religiously oriented homes have more specific concepts of death than those who come from homes where religion plays a minor role (6). Their specific concepts vary, according to the religious beliefs and death concepts of the parents, how these have been presented to the children, and the kind of Sunday school or church the children attend.

Personal Experiences with Death. Every child has some firsthand experiences with death. He loses a pet, he sees a dead bird or cat on the street, or he hears about the death of a family member from one of his peers. Such experiences introduce him to the finality of death and sometimes to the physical distortions that death brings.

When a death occurs in the child's immediate family, even though he has been spared firsthand experiences with the dead person or the funeral and burial, he learns that the permanent absence of the family member means a revision in the pattern of his life. If the family member is replaced, in time, by a stepparent or an adopted sibling, his concept of death will be colored by the way he reacts to the replacement and by the changes in his life pattern that death and the replacement have brought about.

Concepts of Life after Death. Children are not very much concerned about what happens after death. Unless religious instruction emphasizes Hell as a place of eternal punishment, children learn to think of life after death as pleasant. The concept formed in early childhood is likely to persist with few modifications until adolescence.

Children who receive little or no religious instruction about life after death seldom wonder about it or build up any concept of it. Religious instruction is likely to foster such unrealistic concepts that children have to revise them radically when they reach adolescence and become aware of how unrealistic the concepts are.

CONCEPTS OF CAUSALITY

The ability to see cause-and-effect relationships is more closely related to the child's personal experiences and to the kind of learning experiences he has than to either his chronological or his mental age. If the child has learned a number of religious and superstitious beliefs to explain natural phenomena or accidental happenings, he will have many more faulty concepts of causality than if his learning experiences had been more realistic.

Similarly, a child who reads books and comics or who sees movies and television programs with a fairy-tale slant will come to think that *magic* causes anything whose cause is not immediately apparent. A child often learns in religious instruction that *God* is responsible for everything. See Figure 14–5.

As a result of differences in learning experiences, children's concepts of causality cover a wide range at every age. Even in the same child, some concepts are immature and others mature; some are completely faulty, some partially faulty, and some correct.

Concepts related to the child's personal experiences will be the best developed and the most accurate. Schoolwork that emphasizes scientific studies, especially if it is supplemented by demonstrations and educational films, fosters the development of accurate concepts of causality and helps correct inaccurate concepts. Educational movies or television programs and factual, realistic books and comics also encourage the development of accurate concepts of causality.

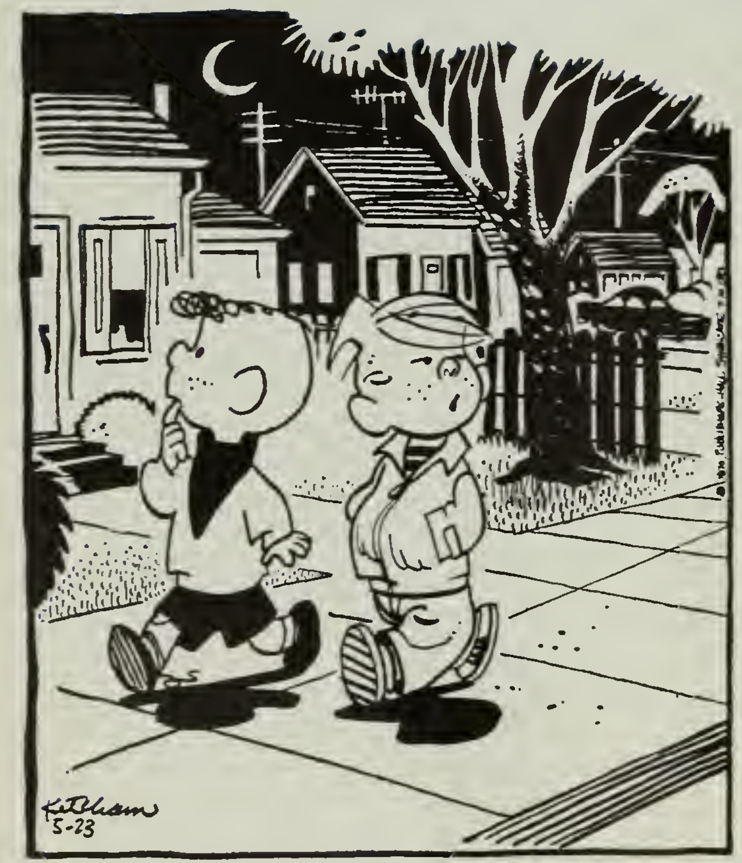
In the pattern of development of concepts of causality, concepts of physical causality are usually developed earlier than concepts of psychological causality. For example, the child can understand what makes clouds move before he can understand what makes people angry or frightened. This difference is due not so much to differences in personal experience as to differences in guidance. The child is told about physical causality at home and in school. Psychological causality, however, remains unexplained, and the child must depend upon his own observation and interpretation (143).

Some Common Concepts of Causality. A number of studies have been made of the pattern of development of concepts of causality. The three areas most widely used to illustrate this pattern deal with concepts of birth, of bodily functions, and of germs.

Concepts of Birth. Many young children think that babies are brought by a stork or that they come from God, from a store, or from the doctor's satchel. Having had no opportunity to see the birth process, even in a pet animal, the child bases his concept upon what his parents, other adults, siblings, or playmates tell him.

By the time the child goes to school, he generally observes a relationship between the arrival of a baby and the change that takes place in the mother's body. He realizes that the mother's abdomen is swollen before the baby arrives and that it assumes its normal shape after the baby's birth. However, he does not include in his concept of birth how the baby got into the mother's body, the role of the father, or how the baby got out of the mother's body. Some children believe that the baby originates from the food the mother eats, while others believe that it was put in the mother's body by magic. Most children believe that the baby emerges into the world through the "belly button" (68, 92). Children's interest in birth and how their concepts of birth affect their attitudes and behavior will be discussed in detail in Chapter 16 on children's interests.

Figure 14–5. Concepts of causality develop first from the child's personal experiences. (Adapted from Ketcham, "Dennis the Menace," the Philadelphia Evening Bulletin, *Publishers-Hall Syndicate, May 23, 1970. Used by permission.)*



"God turns the sun off at night 'cause it's too expensive to keep it runnin' when everybody's asleep."

Concepts of Bodily Functions. Most young children think of the functioning of the body in terms of specific organs. Up to the age of 7 years, for example, they believe that the *brain* is in the head, that it is round and composed of bone, blood, and skin. Only after the fifth or sixth grade does their concept of the brain include flesh and cells.

To older children, *lungs* are represented as round bags, made of bone, skin, blood, and flesh. Some children locate the lungs in the head or neck; few locate them in the chest. Figure 14–6 shows two examples of children's placement of the important organs of the body. Even at the sixth-grade level, children fail to include the sex organs in their placement of the body organs.

In the child's concept of the *digestive process,* digestion takes place in the mouth and stomach. The stomach, which is meant for storing or eating food, is usually located in the upper part of the trunk and is believed to be composed of skin, bone, flesh, and blood.

Children have little understanding of the relationship between eating, digestion, and elimination. Young children often believe that food goes from the mouth to the stomach and then to the arms and legs. The older child is more likely to include the intestines in the route that food takes through the body, though he may be confused about the roles played by the kidneys and the intestines. Even older children have poor concepts of the cause-and-effect relationship between eating and living (35, 42, 93).

Concepts of Germs. While many young children think that illness is caused by their disobedience or naughtiness, most school-age children believe that illness is caused by germs. To a young child, a germ is like a dot or an abstract figure. Children 8 years of age and older think of germs as abstract figures or animals—a fly or worm. They believe that germs enter the body through the mouth, nose, or skin and that they make the person ill, damage the body, or live in the body. Germs can leave the body, they believe, through the mouth, nose, skin, or anus and can be ejected by coughing, sneezing, or anal evacuation. When the doctor gives medicine, that pushes the germs out of the body (91, 95).

CONCEPTS OF SPACE

To judge space accurately, the child must learn to compare it with familiar objects whose size or distance he knows. He must learn to regard the degree of clearness of outline and color and the amount of visible detail as clues, and he must learn that different sensations in the eyes, resulting from convergence or strain, help him to interpret what he observes.

The distance of an object from the child affects the accuracy with which he will judge its size. His own size also affects his judgment. He tends to judge a close object as larger than actually it is and a distant object as smaller. By handling blocks, carts, tricycles, and other play equipment, the child soon learns to perceive short distances accurately. Longer distances, because they are unrelated to his own body—for example, the distance between two trees or the length of a street block—are extremely difficult for him to judge. Not until adolescence can he perceive long distances correctly, and even then his judgments are often erroneous.

In school, the child learns the meaning of inches, feet, yards, pounds, and the standard measures of space and weight, though the concepts may be so formalized that he has difficulty applying them to daily experiences. Box 14–4 shows some common space concepts a child develops and the usual ages at which they are developed (11, 31, 47, 95, 106, 145).

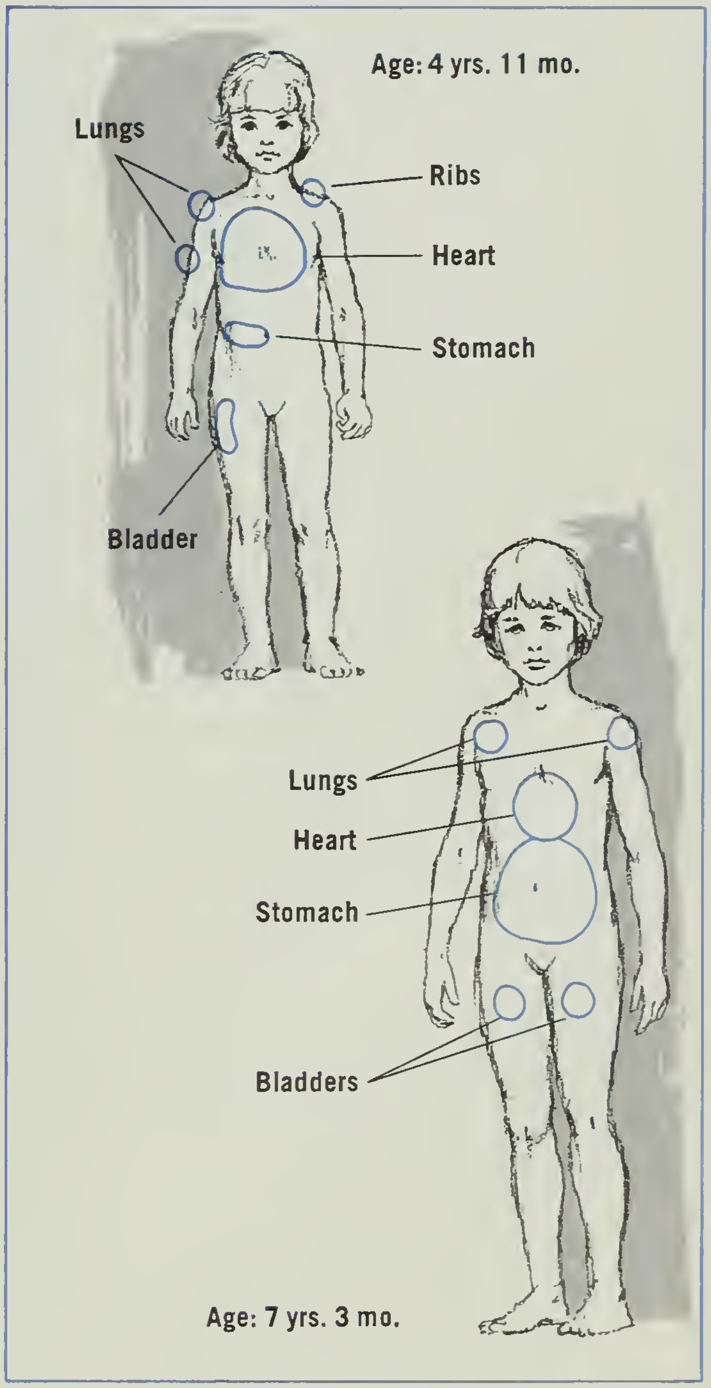
CONCEPTS OF WEIGHT

Concepts of weight are used to judge the relative weight of different objects. Until such concepts are developed, the child will mistake the weight of an object and will not know how much strength to use to move it or pick it up. Many of the breakages of young children can be traced to faulty concepts of weight rather than to poor muscle coordination.

Judgments of weight depend upon judgments of size and upon knowledge of the weight of different materials. The young child judges mainly by *size*. That is why, when he picks up objects, he does not make the necessary muscular adjustments to handle them without breakage. A small toy or object, for instance, may slip through the fingers and break because the child did not expect it to be as heavy as it is.

Gradually the child learns from experience that certain things are "heavy," while others are "light." Of even greater importance, he learns that he must consider what the object is made of as well as its size.

Figure 14–6. Examples of children's placement of some bodily organs at different ages. (Adapted from E. Gellert, Children's conceptions of the content and function of the human body, Genet. Psychol. Monogr., *1962,* **65**, *293–405. Used by permission.)*



In time, he discovers that if he wants to determine just what the weight of an object is, he must pick it up, hold it with his fingers or place it in the palm of his hand, and then move his hand up and down. In this manner, a 5-year-old child can tell the difference between a 3- and a 15-gram weight when they are the same size. With practice, he can tell the difference when the weights vary only 3 or 4 grams (132).

In an experiment in which children were asked to estimate the weight of a milk bottle when filled and when empty, young children tended to underestimate both. With age, they gradually improved their estimates. In estimating the weight of two lumps of Plasticine, equal in size and in weight but different in shape, children showed a gradual increase in accuracy with age (66).

Box 14-4

COMMON SPACE CONCEPTS OF CHILDHOOD

Geometric Form

A 6-month old baby can distinguish between simple geometric forms, such as circles, squares, and triangles. By 2 years, the child's concepts of form are well enough developed to enable him to insert geometric figures in holes on a form board. A year later, he can match objects on the basis of form.

Different-shaped Objects

Concepts of the size of different-shaped objects, such as a star and a square, are not well developed until after the child enters school and receives guidance in combating illusions.

Relative Size

Concepts of relative size appear first between 3 and 4 years of age when the child can select the biggest and smallest from a number of objects. By 9, he can judge middleness as accurately as bigness and smallness.

Right and Left

Up to 7 or 8 years, the child has a nondifferentiated concept of right and left; he can apply the concept to his arms and legs but not to objects. From then until 10 or 11 years, he develops a concrete differentiation of right and left and can apply it to objects outside himself.

Direction

Even elementary school children have difficulty identifying all but the cardinal directions and in describing locations. Concepts of direction gradually improve as children approach adolescence.

Distance

The ability to judge distance develops slowly because the child must learn to use such cues as the relative size of familiar objects, e. g., houses in the distance, and the clearness of detail.

Depth

Perception of depth is slow in developing. Even by school-entrance age, most children cannot see three dimensions in objects.

NUMBER CONCEPTS

Words relating to numbers are used soon after the child starts to speak. This early use of number words, however, is merely a form of "parrot speech." What a number really means to a child and when he can use it in a meaningful way are difficult to determine. The development of number concepts appears to be a function of age and of educational development. Terman and Merrill found that the average child of 4 can count two out of a number of objects; the average child of 5 can count four; and the average child of 6 can count twelve (132).

Young children who go to nursery school or kindergarten generally learn the meaning of numbers sooner than those who do not go. Young children's concepts of numbers above 10 are generally vague and confused. For example, they often think of 100 and 1,000 as similar.

After children begin school and have formal instruction in arithmetic, their number concepts develop rapidly (46). From grades 2 to 11, there is a gradual increase in understanding of indeterminate number concepts, such as "few," "several," "more" or "less," and "some" (27). ,School textbooks place so much emphasis on *quantitative* concepts—number concepts relating to increase or decrease in amount—that children gradually develop more definite and more accurate concepts of what numbers mean. References to "$15 a ton," a "500-mile trip," or a "trip of 20 days" may be relatively meaningless until the child has had instruction in their use and opportunities for comparison (26, 46, 51, 53).

Many children, through hearing family members, teachers, or peers refer to certain numbers as lucky and others as unlucky, add these new meanings to their developing concepts of numbers. They learn to think of 7 and 11 as lucky numbers, as tradition holds they are, just as they learn to associate bad luck with 13 (74).

TIME CONCEPTS

Concepts of time develop very slowly because they are abstract and involve subjective appreciation and more reasoning than the young child is capable of. He may understand numbers on a clock or the time of some specific daily occurrence, but the understanding of dates in historical time, of the word "generation," and of chronological order is beyond him.

Many time concepts, especially those relating to conventional time, are dependent upon the growth of number concepts. A child cannot understand completely the meaning of "month," for example, until he has a correct concept of 30 or 31 and its relationship to 7 days.

Direct training in time concepts is of less value than impressions that accumulate in the process of growing older. The child must build up a foundation of related concepts, mainly concepts of numbers, before training in understanding time can be of much value. He must then learn to associate meanings from his personal or school experiences and from what he learns in books and from movies, television, and other forms of mass communication with his developing time concepts. These meanings are often too remote for him to see the relationship at once.

Genetic Sequence in Learning Time Concepts. Time concepts come into use in a relatively uniform sequence in the life of every child. The ability to tell at what time a thing happens in terms of another activity appears before the ability to give an actual clock time. Children know morning or afternoon at 4 years; what day it is, at 5 years; the names of the days of the week, at 5; and what time it is, at 7. At 7, they also know what month it is and what season. At 8, they know what year and what day of the month it is, and can name the month correctly.

By the time they are 5 years old, children can tell what time they go to bed; by 6, when they have supper, when they get up, when they go to school, and when afternoon begins. Most children can tell their ages when they are 3 years old; when their next birthday will be, at 4; and how old they will be on the next birthday, by the time they are 5. While this pattern is similar for all children, just when a particular child will reach each stage in the pattern will depend largely upon intelligence and learning opportunities (30, 31, 132).

In learning to tell time by the clock, all children follow a similar genetic sequence. They can first tell time and set the clock by the hour, then by the half hour, and later by the quarter hour. They must learn the meaning of the difference in the lengths of the hands, however, before they can do either. Most children learn to tell time during their sixth or seventh year (30, 31).

Concepts of Duration of Time. The ability to estimate time intervals develops only after the child has learned to relate time to different activities. Longer intervals are usually underestimated, while shorter ones are exaggerated; the best evaluation has been found in intervals from 30 seconds to 1 minute in duration. Up to the age of 8 years, children have difficulty judging the length of a second. When they use cues, such as counting aloud, they are able to increase their accuracy (30, 66).

Unlike the younger child, the older child discovers that judgments of time are not influenced by the activity alone but by one's attitude toward it. When the activity is pleasant, time seems much shorter than it actually is (30).

Concepts of Historical Time. The ability to think of the past as different from the present passes through two stages. In the first, or "negative," stage the child learns that the past differs from the present because in the past, for example, people wore skins or worshiped idols. In the second stage, the child not only distinguishes historical periods but also forms a picture of successive epochs not unlike that formed by the adult. It is easier for children to understand periods of time in the past if the periods are pivoted around events rather than around people, dates, or places. Concepts of historical time and of the continuity of time are often vague and confused because they have been taught in terms that are abstract and remote from the child's experiences. This is especially true if the emphasis is on memorizing dates, even when they are associated with the name of a battle or the reign of a king (30, 84, 111).

Because of the new methods of teaching history and the influence of different forms of mass media, children today learn about historical time earlier than their grandparents or parents did. When a child sees movies or TV programs or reads "historical" comic books about King Arthur and the knights of the Round Table, for example, medieval Britain, with its life and customs, becomes far more meaningful than if he merely read stories about King Arthur. Similarly, if the child sees Biblical movies or movies based on events in ancient Rome or Egypt, the past becomes very meaningful to him.

MONEY CONCEPTS

Money becomes meaningful to a child only when he has an opportunity to use it. True, he may be able to identify different coins, but the names of the coins are relatively meaningless until he learns their value or knows what they can buy. Because few children have much opportunity to spend money until they reach school age, the development of money concepts during the preschool years lags behind that of many other concepts.

At 5 years of age, the average child can name pennies only. A year later, he can name pennies, nickels, and dimes, and some children know how many pennies there are in a nickel or dime. The 7-year-old knows what a quarter is, and many children can tell how many pennies there are in a quarter and ask for correct change in a store. At 8½ years, the child can match equivalent amounts with different coins, even when the money combinations are complex (81, 132).

By 5 years of age, children begin to understand that money has to do with buying, though they do not understand that specific coins must be used for buying different things. By the age of 6½ years, children

Box 14-5

EXTRANEOUS MEANINGS ASSOCIATED WITH MONEY

Love

When parents shower the child with toys and gifts and say that this is because they "love him so much," he learns to think of money as a means of buying love from others.

Friendship and Social Acceptance

Many children who use their allowances to "treat" their friends find that this increases their social acceptance, and they associate this meaning with money throughout life.

Control of Behavior

Children who are bribed to study or to be on their good behavior learn to think of money as a way to control the behavior of others.

Payment for Services

When the child is paid for doing household chores, he comes to regard everything as having a "price tag." This colors his attitude toward work in school and, later, in his job.

Prestige

When the child discovers that social acceptance is greatly influenced by the socioeconomic status of the family and that the more material possessions he has the greater his chances for acceptance, he learns to think of money as a source of prestige.

Independence

The child who earns money by doing household chores or after-school jobs discovers that he can spend it as he wishes. In his craving for independence, this colors his attitude toward schooling and plays an important role in his vocational selection.

Determinant of Value

The child learns to think that the more a thing costs the better it is and that the more money a person makes the more successful he is. Human and material worth are thus judged by a monetary yardstick.

Personal Security

From personal experiences of having savings in a piggy bank for making emergency purchases and from observations of elderly people who are economically secure after retirement, the child learns the value of saving as an essential to security at all ages.

realize that a nickel will buy more than a penny but less than a dime. By the age of 7, average children know exactly how much each coin is worth in comparison with every other coin (81).

Meanings Related to Money. The child's concepts of money often contain meanings that have little direct relationship to the use of money for spending or saving or to how much the various denominations of money can buy. In learning these extraneous meanings and practices, the child uses parental attitudes as a model; the parents' attitudes and practices are, in turn, a product of their social class. As the child comes in contact with other adults, with mass media, and with members of the peer group, he not only associates new meanings with money but also adds an emotional weighting to his developing money concept. The important new meanings related to money by the older child are shown in Box 14–5 (34, 76, 97, 128).

Variations in Money Concepts. Variations in children's concepts of money stem from differences in learning experiences. The child who *earns money* learns more about what money means in terms of time and effort than the child who receives his money as an allowance or dole from his parents. In general, experience with money decreases with a rise in number of *siblings in the family;* the more siblings there are, the less money each child has to spend.

The child has more experience in the handling of money if his *mother works* because he has more home responsibilities involving the use of money. Children who *save* their money have a better understanding of its meaning than those who *spend* it. Children who *spend foolishly* learn more about the value of money than children who *spend wisely* or children whose spending is closely supervised.

As children grow older, they begin to *moralize* about the rightness or wrongness of the use of money. Children whose parents keep a close tab on the way they spend their allowances and point out the "foolishness" of certain expenditures and the "wisdom" of others begin to add new meanings to their developing concepts of money. By contrast, children who are allowed to spend as they choose do not develop these new meanings—or they may develop them much later.

Boys, as a rule, have more accurate concepts of what money will buy than girls. Boys have greater freedom in the use of their money and, in general, handle money for their personal needs more than girls. Older boys earn more money outside the home and therefore develop a "money sense" earlier than girls.

In *authoritarian* homes, the parents handle money matters without consulting the child. In homes where child training is more *democratic,* parents often feel that children should not be concerned about financial problems and, consequently, do not discuss such matters with the child or in his presence. As a result, the child has little motivation to learn about money. Consequently, even when he enters adolescence, his money concepts are on a low level of development and are mainly egocentric.

CONCEPTS OF BEAUTY

To a child, as to an adult, nothing is beautiful or ugly in and of itself. What is perceived as beautiful or ugly depends upon the person's associations with it. If these associations are pleasant, the individual perceives the object as beautiful, regardless of how others perceive it. If his associations are unpleasant, he perceives it as ugly. Emotional weighting thus plays an important role in the development of this concept.

The young child regards people he likes as beautiful, no matter how they may be judged by objective standards. When the child goes out into the neighborhood and school, he discovers that other people have different ideas of beauty. No longer are things beautiful or ugly simply because he likes or dislikes them; his concepts of the beauty and ugliness of color, of nature, and of the human face and form are then conditioned by group standards rather than by individual reactions (5, 15, 17, 136).

In addition, the older child is subjected to *mass-communication influences.* Even before he starts school, he has begun to think of beauty and ugliness in terms of what he sees in pictures, books, magazines, and comics and on the moving-picture or television screen. Heroes and heroines, their homes, and all their material possessions are regarded as beautiful, while villains or "underdogs" and their possessions are regarded as ugly. Each year, the influence of mass media on the child's comprehension of beauty increases. Since he and most of his friends see the same movies or television programs and read the same books and comics, the influence of mass communication is augmented by peer influences. The more the child identifies with the characters in books or on the screen, the greater their influence on his concepts of beauty.

In spite of individual experiences that determine whether a person, an object, or a situation will be regarded as beautiful or ugly, many common concepts of beauty are a product of cultural standards. The influence of such standards on the individual child's concepts has been reported in a number of studies. The most important of these common concepts are discussed below.

Concepts of Facial Beauty. In a study of facial features, it has been found that there are developmental trends in aesthetic preferences for thickness of lips, width of mouth, distance between eyes, and length of nose. As the child grows older, his preferences are increasingly similar to those of adults (130). Owing to social learning, children regard members of their own racial group and sex as most beautiful (40, 83). Boys show a preference for pictures of boys, while girls think that girls are more beautiful (40, 136).

Concepts of Bodily Beauty. Cultural pressures largely determine concepts of bodily beauty. As early as kindergarten age children dislike chubby builds and regard slender body builds as beautiful (71). Each year, as children grow older, their concepts of bodily beauty conform more closely to the cultural stereotype. Any child whose body build deviates from this stereotype—in weight, height, or sex appropriateness of appearance—is likely to be subjected to ridicule and to acquire a nickname that tells him how members of the peer group feel about his body.

Concepts of Beauty in Pictures. While children may be attracted by the new and unfamiliar in pictures, studies of what they consider beautiful have revealed that they like pictures of familiar people and animals doing familiar things. They like commonplace objects, such as houses, boats, trees, and airplanes, and action themes dealing with exciting events. Landscapes have little appeal for the young child, though the older child likes them if they contain familiar objects (5, 15, 79).

Realistic pictures appeal to children much more than those which are highly stylized. Colored pictures are preferred only when the colors are realistic. Children also like *simplicity* in pictures; the popularity of the comics is due partly to this factor. As children mature, they begin to like more complexity in drawings (79).

Concepts of Beauty in Color. At all ages, children like color. Which colors they perceive as beautiful, however, depends upon their personal likes and upon the approved cultural attitudes toward different colors. The young child likes colors that are bright and gaudy; he perceives pastel shades and subdued hues as ugly. With increasing age, his attitude changes. By adolescence, both boys and girls show a marked preference for duller shades and less saturated hues; they regard the saturated colors as "loud" or "hideous." Most children like blue, red, and green best, and black, white, yellow, and orange least. Boys prefer red, while girls prefer blue and violet (17, 22).

Concepts of beauty in clothes or pictures are influenced more by color than by form. Children like clothes of their favorite colors better than clothes that are more becoming or more fashionable (115). It has been reported that children like pictures of apple trees because they have red fruit and orange trees because of the bright color of the fruit (1).

In their concepts of color beauty, children incorporate meanings of color which come from their own experiences or are culturally determined. They learn to think of yellow as bright and cheerful—the color of the sun—and regard it as the color of happiness. By contrast, they associate brown and black with sadness; the emotional weighting of their concepts of these colors makes them regard them as "ugly" (70, 148).

Preferences for certain *color combinations* are very indefinite in young children. Red-blue and red-green are the favorite combinations of older children, while orange-green is the least favored combination. At every age, there are more pronounced individual differences for preferred color combinations than for preferred single colors. This is largely due to the different associations individuals make with various color combinations (18, 126).

CONCEPTS OF THE COMIC

Whether the child will perceive something as comic or not depends to a large extent upon the meaning he associates with it. This meaning may be derived from his own personal experience or from his knowledge of what is culturally accepted as a source of the comic and at which laughter is the approved reaction.

Comic perception may be either objective or subjective. In *objective* comic perception, the person sees humor in a situation in which others are involved; in the *subjective* type, he sees humor in a situation involving himself and his own acts. The more intelligent a person is, the better able he is to see himself in perspective and to be amused by his own "pomposity and pretensions." A person of lesser intellectual ability, on the other hand, lacks the insight to appraise himself realistically or to perceive the incongruities in his behavior. As a result, subjective humor is more likely to be found in those of the higher intellectual levels (151).

Perception of the comic does not always elicit laughter, especially among older children. They may have learned that social reactions will be unfavorable or that they will hurt the feelings of the person who is the target of their laughter. Young children, unaware of these possibilities, usually laugh at any situation they regard as comic (69, 80).

Pattern of Development of Comic Concepts. Until a child has developed concepts of size, money, time, and so on, he is unable to see incongruities. As a result, he is unable to perceive the comic. Similarly, until he has developed concepts of different social roles, he is unable to see the humor in a situation in which a person in authority finds himself in a predicament. Much humor is based on language, and so the child must know the meaning of words before he can appreciate jokes or even simple puns. As his language comprehension increases, he is better able to understand complex and abstract jokes.

The close relationship between intelligence and the ability to perceive the comic means that with intellectual development the child can appreciate more subtle and abstract humor; he can understand witty dialogue as well as slapstick comedy. Most cartoons contain elements of hostility, for example, and very intelligent or older children can detect these more readily than the younger and less intelligent.

Concepts of the comic follow a *developmental pattern* that is influenced to some extent by age, intelligence, and interests. Many similar elements are found in the comic concepts of young children, older children, and adolescents. The younger the child, however, the more obvious and concrete the humor must be to be appreciated, and the more closely it must be related to familiar objects and situations.

Comic Concepts in Young Children. While vocal play is one of the earliest forms of humor, babies also perceive comedy in annoying people, dropping things, and blowing bubbles in water. After the first year, children enjoy making faces, doing stunts, and hiding from people and then laughing. Among preschool children, humor is called forth mainly by slapstick situations involving physical incongruities, by noises and grimaces made by the child himself or by others, by word play, by the funny antics of animals, by comic drawings, and by simple jokes. Surprise and suspense are fundamental elements in the perception of the comic at this age.

Comic Concepts in Older Children. The school child will join in with others to laugh at anything whether he thinks it funny or not. Like the younger child, he sees humor mainly in incongruities or in the unusual; in the abasement of dignity; in people who defy authority—as he would like to do but fears doing because of punishment; and in the misfortunes and predicaments of others, especially those whom he looks up to and respects. He will laugh heartily, for example, if he sees his father fall or stumble. Clown acts in the circus or comedy situations in the movies or on the television screen also appeal to the older child because they contain one or more of these elements of humor.

Because of his greater understanding of words, the older child enjoys puns, riddles, and jokes. Practical jokes and jokes relating to forbidden subjects, such as sex, have a strong appeal. Practical jokes are usually aimed at a person in authority or someone against whom the child has some prejudice. The child enjoys them because he feels that he is getting even with that person by making him appear ridiculous, by putting him in a predicament, or by embarrassing him.

Variations in Perception of the Comic. Although the ability to perceive the comic follows a predictable pattern of development, the pattern varies from child to child. The factors chiefly responsible for the variations are discussed in the following paragraphs.

Past Experiences. The child's past experiences and his memories of these experiences will determine whether new experiences are perceived as comic. For example, if the child has been taught that elderly people are dignified, aloof and almost untouchable, he will be more likely to see humor in a situation where an elderly person is in a predicament than he would if he thinks of elderly people as persons who play with him at his own level in a rough-and-tumble way.

Emotional Reactions. Reactions to comic situations are greatly influenced by the child's mood and emotional state. During a temper tantrum, a child can see nothing humorous in a situation which, under normal conditions, he would regard as very funny.

Physical State. The child's physical state, like his emotional state, at the time the comic situation arises affects his reaction to it. When the child is tired, things seem less funny than when he is rested.

Attitudes of Other People. The attitudes of other people toward the source of the comic affect the child's attitude. A joke that is amusing in one situation may seem meaningless or even repugnant in another if the attitudes of the group members toward it are unfavorable.

Intelligence. The more intelligent the child, the more meaning he can perceive. In a mirth test, for example, it was found that the child's ability to perceive the comic in cartoons depended on his comprehension of their meaning. This correlation becomes stronger with age (151).

Personality. The child who feels insecure can rarely see the humor in a situation in which he himself is involved. Instead, he prefers humor which bolsters his ego—objective humor in which he can laugh at others.

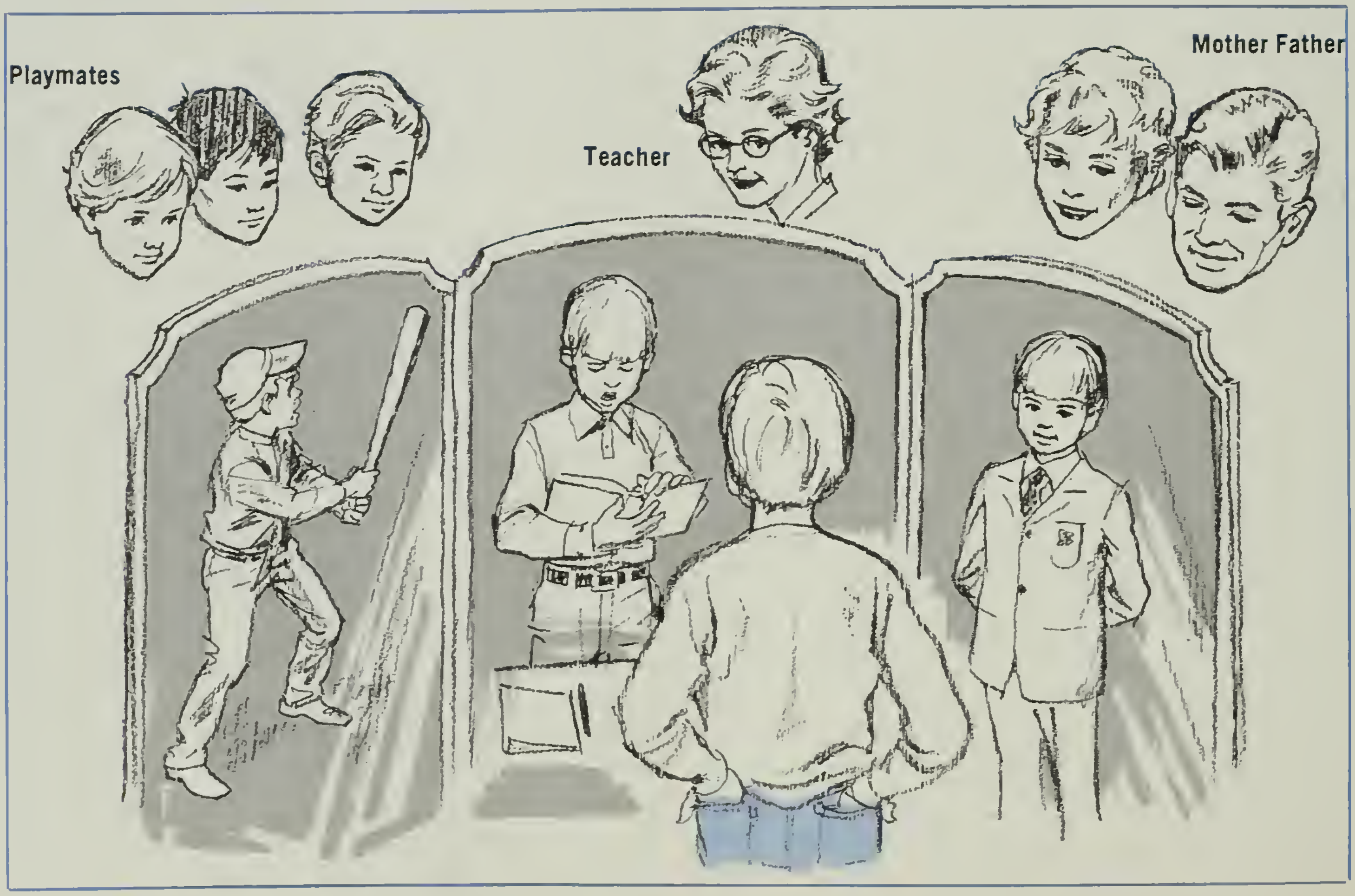
Ability to Empathize. The ability to empathize or to imagine oneself in the place of a person in a predicament influences one's reactions to a comic situation. Perceiving the comic in a cartoon, for example, is easier if the child can imagine himself in the humorous situation than if he looks at it in an impersonal way.

Social Pressures. The child discovers early that certain forms of humor are socially approved and others are not. He then tries to avoid those which lead to social disapproval.

SELF-CONCEPTS

The concept the child has of himself as a person is a composite of the thoughts and feelings he has about himself. This concept includes physical and psychological self-images. The *physical* self-images are usually formed first; they relate to the child's general appearance—its attractiveness or unattractiveness,

Figure 14-7. The child's concept of himself as a person is a mirror image of what he believes significant people in his life think of him.



its sex appropriateness or inappropriateness—and to the importance of the different parts of his body to his behavior and the prestige they give him in the eyes of others. The child's *psychological* self-images are based on his thoughts, feelings, and emotions; they consist of the qualities and abilities that affect his adjustment to life, qualities such as courage, honesty, independence, and self-confidence, and aspirations and abilities of various kinds.

Coordinating his physical and psychological self-images is often difficult for the child: consequently, he is apt to think of himself as a dual personality, with a specific appearance and a specific personality make-up. As he grows older, these self-concepts gradually fuse, and he perceives himself as a unified individual.

"Mirror Images." Self-concepts are based on what the child *believes* significant people in his life think of him; they thus become "mirror images." As Frank and Frank have stated, "The child learns to think and feel about himself as defined by others. He develops an image of self as the chief actor in his 'private world.' This image develops primarily from the way parents, teachers, and other significant persons describe, punish, praise, or love him" (39). See Figure 14-7.

Mirror images are often faulty. Since the child is incapable of perceiving below the surface of the speech and behavior of others, he often fails to grasp the true motivation behind their treatment of him. Thus he may base his self-image on a *misinterpretation*. Should his parents call him a "naughty boy" when he misbehaves but fail to call him a "good boy" when he does what they want him to do, he will build up a concept of himself as "naughty" and come to believe that he is inferior. Should the teacher give more time to a slow learner than to him, he may readily misinterpret this to mean that the teacher likes the slow learner better.

Pattern of Development of Self-concepts. Self-concepts, like other concepts, develop in a predictable pattern. Development of awareness of self is not a unitary process. Rather, the child perceives different aspects of himself at different times. In a healthy pattern of development, old self-concepts must change as new self-discoveries are made; the unrealistic and biased elements of early concepts must be replaced by more realistic and unprejudiced ones.

Since the young child is primarily egocentric, he forms concepts about himself before he forms concepts about others. What he thinks of himself colors what he thinks of others. Concepts of self are thus used as a standard by which the child judges others and interprets their behavior.

Hierarchy of Self-concepts. Concepts of self are hierarchical in nature; the most basic—the *primary* self-concept—is acquired first. It is founded on the experiences the child has in the home and is made up of many individual concepts, each resulting from experiences with different members of the family group.

The primary self-concept includes both physical and psychological self-images, though the former usually develop earlier than the latter. The first psychological self-images are based on the child's contacts with his siblings and his comparison of himself with them. Similarly, his early concepts of his roles in life, his aspirations, and his responsibilities to others are based on parental teachings and pressures.

As contacts outside the home increase, the child acquires other concepts of himself. These make up the *secondary* self-concept. They relate to how the child sees himself through the eyes of others. The primary self-concept frequently determines the selection of situations in which the secondary self-concept will be formed. A child who has developed a self-concept characterized by beliefs in his own importance, for example, will select playmates who regard him much as his parents do.

The secondary self-concept, like the primary, includes physical as well as psychological self-images. The child will think of his physical structure as people outside the home do, and he will evaluate his psychological self-images, formed at home, by comparing them with what he believes peers, teachers, and other adults think of him.

Generally, though not always, the primary self-concept is more favorable than the secondary. When a discrepancy exists, the child must close the gap between the two if he is to be a happy, well-adjusted person. He may do this by trying to force others to change their unfavorable concepts of him so that they will correspond to the favorable concepts he has of himself. This rarely works. Usually the child must revise his unrealistic self-concepts so that they will more closely approach reality.

Important Elements in Pattern of Development. All children add to their self-concepts meanings that their cultural group regards as important. These elements are added at predictable times and are similar for all children, though variations in subsocieties affect them somewhat. The new meanings that are almost universally associated with self-conepts during the childhood years are shown in Box 14-6.

Box 14-6

COMMON ELEMENTS OF SELF-CONCEPTS

Sex Differences

By the age of 3 or 4 years, the child is aware of his own sex and uses such cues as hair styles and clothing to distinguish members of the two sexes. Awareness of differences in interests, achievements, and aptitudes develops after the child enters school and reaches a peak at puberty. Gradually an emotional weighting is added, based on an awareness of social attitudes toward "male" and "female."

Sex Roles

Children learn the appropriate behavior for their sex by identifying with their parents and by parental training and pressures. Later they learn by identifying with adults or older children outside the home and with cultural stereotypes in the mass media. By the time children enter school, these meanings are added to their self-concepts, and emotional weighting, based on social attitudes toward the roles of the two sexes, becomes an important part of the self-concept.

Racial Differences

Most children can distinguish their racial identification by the time they are 4 years old. They gradually learn the social attitudes toward members of their race and the prestige or lack of prestige associated with their racial group. How children are treated by peers as well as by other members of the social group contributes to the emotional weighting of their self-concepts.

Social-class Differences

The preschool child discovers that there are differences in what people have and in the way they live. He learns that these are related to the father's occupation and that some people are labeled "rich" while others are labeled "poor." He adds these meanings to his self-concept. Figure 14-8 shows the cues children use to identify social-class belonging. The more important social acceptance is to the child, the more emotional weighting he gives to social-class membership.

SOCIAL CONCEPTS

Social concepts, or concepts relating to people and social situations, usually develop slightly later than self-concepts. The baby and young child are egocentric, and their interests center more on themselves than on others. Also, the young child has limited social horizons, and so he has few opportunities to develop social concepts.

Development of Social Concepts. The baby differentiates the voice from other sounds by the time he is 1 month old, and he shows an interest in people by smiling and laughing at them at 2 or 3 months. By 3 months, he can differentiate between strangers and familiar persons, and at 6 months, he responds to facial expressions. Not until 8 months, however, does he respond to the emotional behavior of others in a way which signifies that he understands facial expressions. An angry face causes the baby to turn away, while a smiling face leads to aggressive movements, such as coming toward the person or holding out his arms.

The older child includes in his developing social concepts not only an understanding of the feelings and emotions of others as expressed in their overt behavior but also an understanding of their meanings. Thus the child's social perceptions are colored by his past experiences, by social pressures, and by what he has heard others say or what he has observed in their behavior. The more heavily weighted the concepts are with emotionally toned attitudes, the more impact they have on the child's judgment. With each passing year, the child is better able to identify the behavior and attitudes that adults will approve. Girls are slightly more discriminating in this respect than boys. Older children size up both adults and their contemporaries fairly accurately and develop specific concepts of them in terms of socially approved behavior. Even within the family, children develop specific concepts of the approved social role for the mother, the father, the child, and the other family members. This topic will be discussed in detail in Chapter 17, Family Relationships.

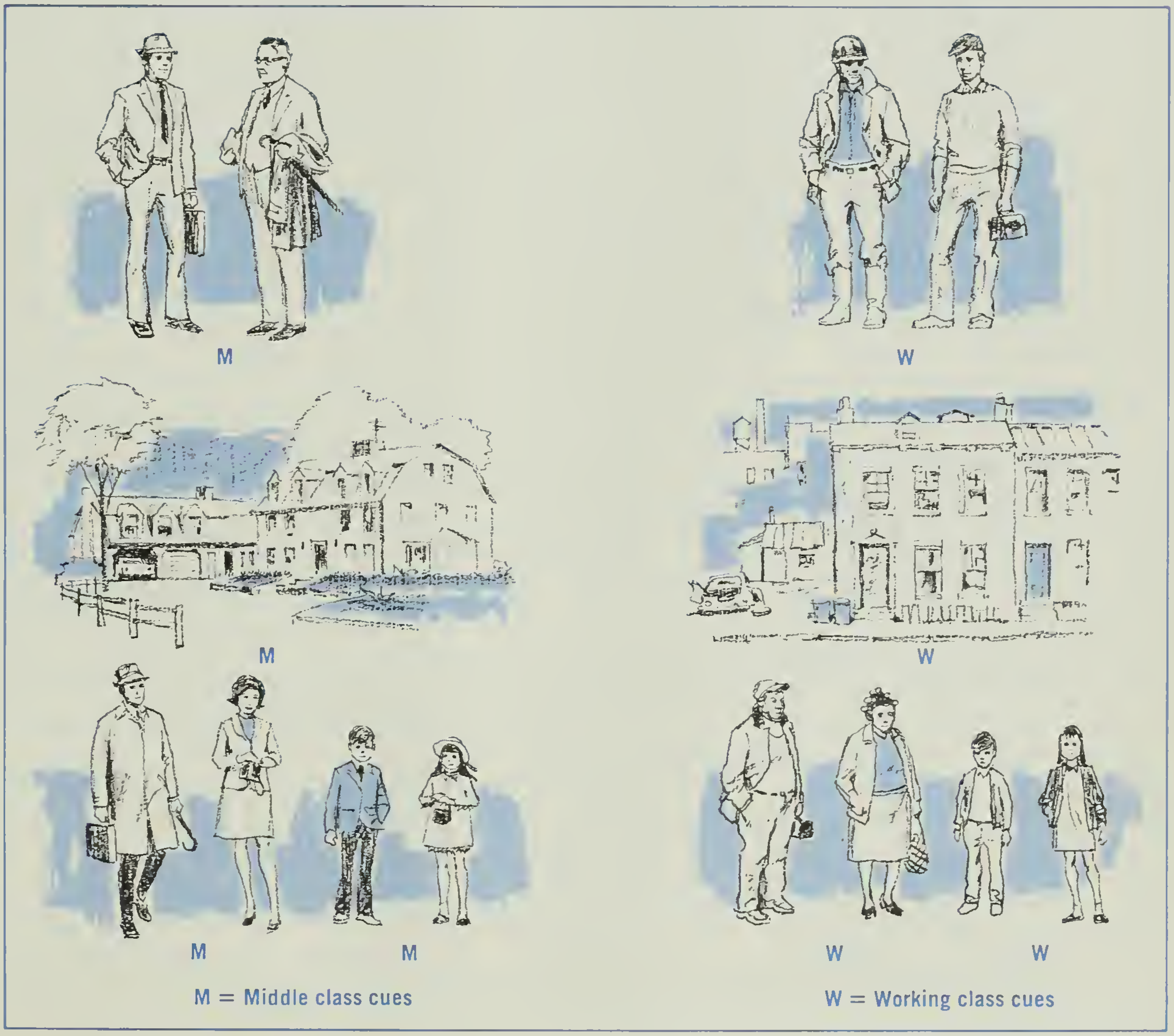
Association of Racial Meanings. Prejudice influences the child's developing concepts of members of different racial groups. Prejudice against a member of a minority group is usually not based on personal experience, but is a reflection of cultural patterns and stereotypes. The preschool child can distinguish people of different races on the basis of skin and hair color and other physical features, but the degree of difference between his own appearance and that of people of other racial groups determines the age at which he becomes aware of the difference (125).

Since children of minority groups are sensitized to racial differences earlier than those of majority groups, social concepts of minority-group children contain meanings of racial differences earlier. The child's concepts of race include not only the appearance of people of different racial groups but also their occupations, clothing, living quarters, personalities, and abilities. These associations become stronger as children grow older.

Association of Sex-role Meanings. In the development of social concepts, the child adds meanings related to *sex differences* and approved *sex roles.* While learning how he differs from members of the opposite sex and what the approved sex role for members of his sex is, he learns to judge others—parents, siblings, peers, and adults outside the home—in terms of these meanings.

That children are well aware of what the social group expects of members of both sexes before childhood is over is shown by the results of a study in which

Figure 14–8. Some cues used by children to identify social-class differences. (Adapted from G. Jahoda, Development of the perception of social differences in children from 6 to 10, Brit. J. Psychol., *1959,* **50**, *159–175. Used by permission.)*



boys were asked what they believed the social group expects of boys. In answer to this question, the boys gave the following picture, as described by Hartley (56):

> *They have to be able to fight in case a bully comes along; they have to be athletic; they have to be able to run fast; they must be able to play rough games; they need to know how to play many games—curb-ball, baseball, basketball, football; they need to be smart; they need to be able to take care of themselves; they should know what girls don't know—how to climb, how to make a fire, how to carry things; they should have more ability than girls; they need to know how to stay out of trouble; they need to know arithmetic and spelling more than girls do.*

Association of Social-class Meanings. Social concepts also include meanings related to social-class identification. Even in the preschool years, some children make vague social distinctions on the basis of crude and concrete cues which enable them to compare their social milieu with that of others.

For most children, perception of social-class differences develops rapidly during the childhood years, reaching the adult level during early adolescence. Estvan and Estvan found that among elementary school children, the ability to understand and appreciate high socioeconomic status, as represented by a picture of a mansion, was more closely related to development of social maturity than to differences in children's social backgrounds. At the age of 6 years, for example, only 30 percent of the children studied were able to discriminate between the mansion and any other home situation; by 12, the percentage had risen to 68. With this increasing sensitivity to social-class differences came a higher regard for what the mansion symbolizes in our culture (33).

Difficulties in Changing Concepts

Concepts indirectly influence behavior through their bearing on understanding. Therefore, it is often desirable to change the child's concepts, especially if they are faulty. Changing any concepts is far from easy, although the emotional weighting of a concept determines to a large extent the ease or difficulty of changing it. As was stressed in the earlier discussion of prejudice, if prejudice is built upon an unpleasant experience with a person of a particular racial or religious background, it will be much more difficult to modify than if it is based on peer-group pressures, for emotional weighting plays a more important role in the former.

Only when the emotional weighting of concepts is changed can there be any real or permanent change in the concept itself. And unless this occurs, there can be no change in the pattern of behavior associated with the concept. Just changing the cognitive aspect of a concept alone is not enough; the affective aspect must likewise be changed if there is to be any change in behavior. If a child develops an unfavorable attitude toward school, parents and teachers can explain to the child why education is important to him. The child may understand and agree with all they say, but unless something can be done to improve his attitude toward school or toward a teacher who has conditioned him to dislike school, his concept of school will remain unfavorable. Attitudes are so persistent that unfavorable attitudes should be detected and modified before they become habitual.

The difficulty of changing unfavorable attitudes due to unfavorable concepts is most pronounced in the area of self-concepts. Few adults are aware that a child builds up unfavorable self-concepts through misinterpreting the speech and behavior of others. Consequently, such concepts get a strong hold on the child before they are detected and corrected. Even more important, few adults, either parents or teachers, *try to control* the development of the child's self-concepts to ensure that they will be both realistic and favorable. The result is that self-concepts develop haphazardly and contain many misconceptions. Even though the child develops better social insight and makes more accurate appraisals of his abilities, appearance, achievements, and roles as he grows older, his self-concepts are likely to be colored by mirror images he has formed earlier.

Highlights of Chapter 14

1. Adjustments in childhood are greatly influenced by the child's understanding of his environment, of people, and of himself.

2. Maturation provides a state of readiness to understand, but learning is essential to the acquisition of meanings on which understanding is based.

3. Concepts, which are at the basis of understanding,

are developed from the elaboration and combination of discrete sensory experiences.

4. The three essentials in the development of concepts are the ability to see relationships, the ability to comprehend underlying meanings, and the ability to reason.

5. In the development of concepts, meanings are derived from sensory exploration, motor manipulation, asking questions, pictorial mass media, and reading.

6. Concept development is influenced by such factors as the condition of the sense organs, intelligence, opportunity to learn, the kind of experiences the child has, and the child's sex and personality.

7. Misconceptions result from incorrect information, limited experiences, gullibility, faulty reasoning, vivid imagination, unrealistic thinking, and misunderstanding of words.

8. Misconceptions are damaging to the child because they are difficult to revise and because they affect the child's adjustments.

9. Concepts of life and death, which develop early, are often influenced by the mass media and by animistic thinking.

10. Concepts of causality tend to be influenced by the child's experiences and, as a result, are often erroneous as shown by experimental studies of concepts of birth, bodily functions, and germs.

11. Concepts of space and of weight are interrelated, with the former influencing the development of the latter.

12. Number and time concepts tend to be erroneous until children enter school because they are related to experiences which are limited in the young child's life.

13. In the development of money concepts, the addition of meanings relating to how money can be used is responsible for their emotional weighting.

14. Concepts of beauty and of the comic are influenced by social as well as personal experiences.

15. In the development of self and social concepts, meanings related to sex differences, sex roles, racial, and social-class differences are gradually added as the child's experiences outside the home increase.

16. Faulty concepts can have a damaging effect on the child's adjustments. They are often difficult to change because of their emotional weighting.

Bibliography

1. Adler, L. L.: The "fruit-tree experiment" as a measure of children's preferences of fruit trees under varied conditions of color availability. *J. genet. Psychol.,* 1970, **116,** 191–195.
2. Angrist, S. S.: Role conception as a predictor of adult female roles. *Sociol. soc. Res.,* 1966, **50,** 448–459.
3. Annett, M.: The classification of instances of four common class concepts by children and adults. *Brit. J. educ. Psychol.,* 1959, **29,** 223–236.
4. Arthur, B., and M. L. Kemme: Bereavement in childhood. *J. clin. Psychol. Psychiat.,* 1964, **5,** 37–49.
5. Ausubel, D. P., F. DeWitt, B. Golden, and S. H. Schpoont: Prestige suggestion in children's art preferences. *J. genet. Psychol.,* 1956, **89,** 85–93.
6. Barclay, D.: Questions of life and death. *The New York Times,* July 15, 1962.
7. Bayley, N.: Development of mental abilities. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1163–1209.
8. Beilin, H.: Cognitive capacities of young children: A replication. *Science,* 1968, **162,** 920–921.
9. Berlyne, D. E.: Children's reasoning and thinking. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970. vol. 1, pp. 939–981.
10. Bledsoe, J. C.: Self-concepts of children and their intelligence, achievement, interests, and anxiety. *J. indiv. Psychol.,* 1964, **20,** 55–58.
11. Boone, D. R., and T. E. Prescott: Development of left-right discrimination in normal children. *Percept. mot. Skills,* 1968, **26,** 267–274.
12. Bresnahan, J. L., S. L. Ivey, and M. M. Shapiro: Developmentally defined obviousness in concept formation tasks. *Develpm. Psychol.,* 1969, **1,** 383–388.
13. Bronzo, A. F.: An investigation of coin-shape estimates by orphaned children, normal children, and emotionally disturbed children. *J. Psychol.,* 1965, **60,** 301–308.
14. Byers, J. L.: Verbal and concept learning. *Rev. educ. Res.,* 1967, **37,** 494–513.
15. Cantor, G. N.: Children's "like-dislike" ratings of familiarized and nonfamiliarized visual stimuli. *J. exp. Child Psychol.,* 1968, **6,** 651–657.
16. Carpenter, T. R., and T. V. Busse: Development of self concept in

Negro and white welfare children. *Child Develpm.*, 1969, **40,** 935–939.

17. Child, I. L., J. A. Hansen, and F. W. Hornbeck: Age and sex differences in children's color preferences. *Child Develpm.*, 1968, **39,** 237–247.

18. Choungourian, A.: Color preferences: A cross-cultural and cross-sectional study. *Percept. mot. Skills,* 1969, **28,** 801–802.

19. Coombs, R. H.: Social participation: Self-concept and interpersonal valuation. *Sociometry,* 1969, **32,** 273–286.

20. Coser, R. L.: Laughter among colleagues. *Psychiatry,* 1960, **23,** 81–95.

21. Crager, R. L., and A. J. Spriggs: Development of concept utilization. *Develpm. Psychol.*, 1969, **1,** 415–424.

22. Dale, P. S.: Color meaning, matching and recognition by preschoolers. *Child Develpm.*, 1969, **40,** 1135–1144.

23. DeFleur, M. L., and L. B. DeFleur: The relative contribution of television as a learning source for children's occupational knowledge. *Amer. sociol. Rev.*, 1967, **32,** 777–789.

24. DeLeon, J. L., L. M. Raskin, and G. E. Gruen: Sensory-modality effects on shape perception in preschool children. *Develpm. Psychol.*, 1970, **3,** 358–362.

25. Dennis, W.: Arab and United States children: Some psychological comparisons. *Trans. N. Y. Acad. Sci.*, 1966, **22,** 589–603.

26. D'Mello, S., and E. Willemsen: The development of the number concept: A scalogram analysis. *Child Develpm.*, 1969, **40,** 681–688.

27. Donaldson, M., and G. Balfour: Less is more: A study of language comprehension in children. *Brit. J. Psychol.*, 1968, **59,** 461–471.

28. Dubin, R., and E. R. Dubin: Children's social perceptions: A review of research. *Child Develpm.*, 1965, **36,** 809–838.

29. Durkin, D.: Children's concept of justice: A further comparison with the Piaget data. *J. educ. Res.*, 1959, **52,** 252–257.

30. Elkind, D.: Of time and the child. *The New York Times,* Dec. 11, 1970.

31. Elkind, D., R. Barocas, and D. Johnson: Concept production in children and adolescents. *Hum. Develpm.*, 1969, **12,** 10–21.

32. Estes, B. W.: Judgment of size in relation to geometric shape. *Child Develpm.*, 1961, **32,** 277–286.

33. Estvan, F. J., and E. W. Estvan: *The child's world: His social perception.* New York: Putnam, 1959.

34. Evans, S.: For love of money. *J. emot. Educ.*, 1967, **7,** 156–158.

35. Faterson, H. F., and H. A. Witkin: Longitudinal study of development of the body concept. *Develpm. Psychol.*, 1970, **2,** 429–438.

36. Faw, T. T., and J. C. Nunnally: The influence of stimulus complexity, novelty, and affective value on children's visual fixations. *J. exp. Child Psychol.*, 1968, **6,** 141–153.

37. Feigenbaum, K. D., D. Geiger, and S. Crevoshay: An exploratory study of the 3-, 5- and 7-year-old female's comprehension of cooperative and uncooperative social interaction. *J. genet. Psychol.*, 1970, **116,** 141–148.

38. Flavell, J. H.: Concept development. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 983–1059.

39. Frank, L. K., and M. H. Frank: *Your adolescent, at home and in school.* New York: Viking, 1956.

40. Friedlander, B. Z.: The effect of speaker identity, voice inflection, vocabulary, and message redundancy on infants' selection of vocal reinforcement. *J. exp. Child Psychol.*, 1968, **6,** 443–459.

41. Gannon, D. R.: Relationship between 8-month performance on the Bayley Scales of Infant Development and concept formation scores. *Psychol. Rep.*, 1968, **23,** 1199–1205.

42. Gellert, E.: Children's conceptions of the content and function of the human body. *Genet. Psychol. Monogr.*, 1962, **65,** 293–405.

43. Gellert, E.: Comparisons of children's self drawings with their drawings of other persons. *Percept. mot. Skills,* 1968, **26,** 123–138.

44. Gibby, R. G., and R. Gabler: The self-concept of Negro and white children. *J. clin. Psychol.*, 1967, **23,** 144–148.

45. Gibson, E. J.: *Principles of perceptual learning and development.* New York: Appleton-Century-Crofts, 1969.

46. Ginsberg, R.: Number and color responses in the young child. *J. exp. Child Psychol.*, 1969, **7,** 265–273.

47. Ginsburg, H., and A. Rapoport: Children's estimates of proportions. *Child Develpm.*, 1967, **38,** 205–212.

48. Golden, M., and B. Birns: Social class and cognitive development in infancy. *Merrill-Palmer Quart.*, 1968, **14,** 139–149.

49. Goodnow, J. J.: Effects of active handling illustrated by uses for objects. *Child Develpm.*, 1969, **40,** 201–212.

50. Graham, L. R.: The maturational factor in humor. *J. clin. Psychol.*, 1958, **14,** 326–328.

51. Grant, M.: The development of the concept of -notation. *Brit. J. educ. Psychol.*, 1970, **40,** 81–82.

52. Gray, S. W., and J. O. Miller: Early experience in relation to cognitive development. *Rev. educ. Res.*, 1967, **37,** 475–493.

53. Halford, G. S.: An experimental analysis of the criteria used by children to judge quantities. *J. exp. Child Psychol.*, 1969, **8,** 314–327.

54. Hall, G. S.: The contents of children's minds on entering school. *Ped. Sem.*, 1891, **1,** 139–173.

55. Hansley, C., and T. V. Busse: Perceptual exploration in Negro children. *Develpm. Psychol.*, 1969, **1,** 446.

56. Hartley, R. E.: Sex-role pressures and the socialization of the male child. *Psychol. Rep.*, 1959, **5,** 457–468.

57. Hartup, W. W., and E. A. Zook: Sex-role preferences in three- and four-year-old children. *J. consult. Psychol.*, 1960, **24,** 420–426.

58. Heise, D. R., and E. P. M. Roberts: The development of role knowledge. *Genet. Psychol. Monogr.*, 1970, **82,** 83–115.

59. Jahoda, G.: Development of the

perception of social differences in children from 6 to 10. *Brit. J. Psychol.,* 1959, **50,** 159–175.

60. James, W.: *The principles of psychology.* New York: Holt, 1890.

61. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

62. Kagan, J., and N. Kogan: Individual variation in cognitive processes. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1273–1365.

63. Karmel, B. Z.: The effect of age, complexity and amount of contour on pattern preferences in human infants. *J. exp. Child Psychol.,* 1969, **7,** 339–354.

64. Katz, P. A., and E. Zigler: Effects of labels on perceptual transfer: Stimulus and developmental factors. *J. exp. Psychol.,* 1969, **80,** 73–77.

65. Kinch, J. W.: Experiments on factors related to self-concept change. *J. soc. Psychol.,* 1968, **74,** 251–258.

66. King, W. H.: The development of scientific concepts in children. *Brit. J. educ. Psychol.,* 1961, **31,** 1–20.

67. Klingberg, G.: The distinction between living and not living among 7- 10-year-old children, with some remarks concerning the so-called animism controversy. *J. genet. Psychol.,* 1957, **90,** 227–238.

68. Kreitler, H., and S. Kreitler: Children's concepts of sexuality and birth. *Child Develpm.,* 1966, **37,** 363–378.

69. Kreitler, H., and S. Kreitler: Dependence of laughter on cognitive strategies. *Merrill-Palmer Quart.,* 1970, **16,** 162–177.

70. Lawler, C. O., and E. E. Lawler: Color-mood association in young children. *J. genet. Psychol.,* 1965, **107,** 29–32.

71. Lerner, R. M., and E. Gellert: Body build identification, preference and aversion in children. *Develpm. Psychol.,* 1969, **1,** 456–462.

72. Lester, D.: The fear of the dead in nonliterate societies. *J. soc. Psychol.,* 1969, **77,** 283–284.

73. Lewis, M.: Infants' responses to facial stimuli during the first year of life. *Develpm. Psychol.,* 1969, **1,** 75–86.

74. Lindauer, M. S.: Historical and contemporary attitudes toward numbers. *J. Psychol.,* 1969, **71,** 41–43.

75. Looft, W. R., and D. C. Charles: Modification of the life concept in children. *Develpm. Psychol.,* 1969, **1,** 445.

76. Luft, J.: Monetary value and the perception of persons. *J. soc. Psychol.,* 1957, **46,** 245–251.

77. Lumsden, E. A., and J. K. Kling: The relevance of an adequate concept of "bigger" for investigations of size conservation: A methodological critique. *J. exp. Child Psychol.,* 1968, **8,** 82–91.

78. Maccoby, E. E., and W. C. Wilson: Identification and observational learning from films. *J. abnorm. soc. Psychol.,* 1957, **55,** 76–87.

79. Machotka, P.: Aesthetic criteria in childhood: Justifications of preference. *Child Develpm.,* 1966, **37,** 877–885.

80. Malefijt, A. deW.: Dutch joking patterns. *Trans. N. Y. Acad. Sci.,* 1968, **30,** 1181–1186.

81. Marshall, H. R.: The relation of giving children an allowance to children's money knowledge and responsibility and to other practices of parents. *J. genet. Psychol.,* 1964, **104,** 35–57.

82. Martin, D., and L. S. Wrightsman: Religion and fears about death: A critical review of research. *Relig. Educ.,* 1964, **57,** 174–176.

83. Martin, J. G.: Racial ethnocentrism and judgment of beauty. *J. soc. Psychol.,* 1964, **63,** 59–63.

84. McAulay, J. D.: What understandings do second grade children have of time relationships? *J. educ. Res.,* 1961, **54,** 312–314.

85. McGaughran, L. S., and A. A. Wylie: Continuity in the development of conceptual behavior in preschool children: Response to a rejoinder. *Develpm. Psychol.,* 1970, **2,** 306.

86. McNaughton, A. H.: A generalization is a generalization. *Teachers Coll. Rec.,* 1969, **70,** 715–727.

87. Middleton, M. R., H. Tajfel, and N. B. Johnson: Cognitive and affective aspects of children's national attitudes. *Brit. J. soc. clin. Psychol.,* 1970, **9,** 122–134.

88. Mischel, W.: Sex-typing and socialization. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 3–72.

89. Munn, N. L.: *The evolution and growth of human behavior,* 2d ed. Boston: Houghton Mifflin, 1965.

90. Nadelman, L.: Sex identity in London children: Memory, knowledge, and preference tests. *Hum. Develpm.,* 1970, **13,** 28–42.

91. Nagy, M. H.: Children's ideas about the origin of illness. *Hlth. educ. J.,* 1951, **9,** 6–12.

92. Nagy, M. H.: Children's birth theories. *J. genet. Psychol.,* 1953, **83,** 217–226.

93. Nagy, M. H.: Children's conceptions of some bodily functions. *J. genet. Psychol.,* 1953, **83,** 199–216.

94. Nagy, M. H.: The representation of "germs" by children. *J. genet. Psychol.,* 1953, **83,** 227–240.

95. Nash, H.: The judgment of body landmark heights. *Genet. Psychol. Monogr.,* 1967, **79,** 251–296.

96. Natterson, J. M., and A. G. Kundson: Observations concerning fear of death in fatally ill children and their mothers. *Psychosom. Med.,* 1960, **22,** 456–465.

97. Neisser, E. G.: Emotional and social values attached to money. *Marriage fam. Living,* 1960, **22,** 132–139.

98. Nelson, K. J., T. Zelniker, and W. E. Jeffrey: The child's concept of proportionality: A reexamination. *J. exp. Child Psychol.,* 1969, **8,** 256–262.

99. *New York Times* Report: Long and short days simplified by pupil. *The New York Times,* Feb. 11, 1962.

100. Oskamp, S.: Relationship of self-concept to international attitudes. *J. soc. Psychol.,* 1968, **76,** 31–36.

101. Palmer, R. J., and J. Masling: Vocabulary for skin color in Negro and white children. *Develpm. Psychol.,* 1969, **1,** 396–401.

102. Piaget, J.: *Six psychological studies.* New York: Random House, 1968.

103. Piaget, J., and B. Inhelder: *The psychology of the child.* New York: Basic Books, 1969.

104. Pick, H. L., and A. D. Pick: A developmental and analytic study of the size-weight illusion. *J. exp. Child Psychol.,* 1967, **5,** 362–371.

105. Piers, E. V., and D. B. Harris: Age and other correlates of self-concept in children. *J. educ. Psychol.,* 1964, **55,** 91–95.

106. Poteat, B. W., and R. C. Hulsebus: The vertical dimension: A significant cue in the preschool child's concept of "bigger." *Psychonomic Science,* 1968, **12,** 369–370.

107. Pumfrey, P.: The growth of the schema of proportionality. *Brit. J. educ. Psychol.,* 1968, **38,** 202–204.

108. Quarterman, C. J., and K. F. Riegel: Age differences in the identification of concepts of the natural language. *J. exp. Child Psychol.,* 1968, **6,** 501–509.

109. Rapoport, J. L.: Attitude and size judgment in school age children. *Child Develpm.,* 1967, **38,** 1187–1192.

110. Richardson, C., and J. Church: A developmental analysis of proverb interpretation. *J. genet. Psychol.,* 1959, **94,** 169–179.

111. Rogers, K. W.: Concepts of time in secondary school children of above average IQ. *Brit. J. educ. Psychol.,* 1967, **37,** 99–109.

112. Rohiver, W. H.: Cognitive development and education. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 1379–1454.

113. Rosenberg, B. G., and B. Sutton-Smith: The measurement of masculinity and femininity in children: An extension and revalidation. *J. genet. Psychol.* 1964, **104,** 259–264.

114. Russell, D. H.: *Children's thinking.* Boston: Ginn, 1956.

115. Ryan, M. S.: *Clothing: A study in human behavior.* New York: Holt, 1966.

116. Sapier, G.: A study of relationships between the life and death concepts in children. *J. genet. Psychol.,* 1964, **105,** 283–294.

117. Schaffer, H. R., and M. H. Parry: Perceptual-motor behavior in infancy as a function of age and stimulus familiarity. *Brit. J. Psychol.,* 1969, **60,** 1–9.

118. Schell, R. E., and J. W. Silber: Sex-role discrimination among young children. *Percept. mot. Skills,* 1968, **27,** 379–389.

119. Shwartz, E. K.: A psychoanalytic study of the fairy tale. *Amer. J. Psychother.,* 1956, **10,** 740–762.

120. Shane, H. G.: Children's interests. *NEA J.,* 1957, **46,** 237–239.

121. Siegel, L. S., and W. H. Forbes: Rule structure and proportion of positive instances of determinants of concept attainment in children. *Develpm. Psychol.,* 1970, **3,** 271.

122. Smith, F., and J. H. Dougherty: Natural phenomena as explained by children. *J. educ. Res.,* 1965, **59,** 137–140.

123. Smith, O. W.: Spatial perceptions and play activities of nursery school children. *Percept. mot. Skills,* 1965, **21,** 260.

124. Stabler, J. R., E. E. Johnson, M. A. Berke, and R. B. Baker: The relationship between race and perception of racially related stimuli in preschool children. *Child Develpm.,* 1969, **40,** 1233–1239.

125. Stevenson, W. H.: Learning in children. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 1, pp. 849–938.

126. Strain, G. S.: Preferences for complexity in children's color choices. *Percept. mot. Skills,* 1968, **27,** 1030.

127. Suppes, P., and I. Rosenthal-Hill: Concept formation by kindergarten children in a card-sorting task. *J. exp. Child Psychol.,* 1968, **6,** 212–230.

128. Sutton, R. S.: Behavior in the attainment of economic concepts. *J. Psychol.,* 1962, **53,** 37–46.

129. Tagatz, G. E., D. L. Meinke, and E. A. Lemke: Developmental aspects relative to information processing and concept attainment. *J. genet. Psychol.,* 1968. **113,** 253–262.

130. Taylor, C., and G. G. Thompson: Trends in preferences for certain facial proportions. *Child Develpm.,* 1955, **26,** 97–102.

131. Taylor, R. G.: Racial stereotypes in young children. *J. Psychol.,* 1966, **64,** 137–142.

132. Terman, L. M., and M. A. Merrill: *Stanford-Binet Intelligence Scale,* 3d rev. Boston: Houghton Mifflin, 1960.

133. Thomas, H.: Preferences for random shapes: Ages six through nineteen years. *Child Develpm.,* 1966, **37,** 843–859.

134. Travers, R. M. W.: Perceptual learning. *Rev. educ. Res.,* 1967, **37,** 599–617.

135. Tsai, L. S., and C. W. S. Chen: Concept discovery by school children of six concepts of middleness. *Percept. mot. Skills,* 1968, **26,** 107–114.

136. Udry, J. R.: A research note on children's concepts of beauty. *Merrill-Palmer Quart.,* 1966, **12,** 165–171.

137. Vener, A. M., and C. A. Snyder: The preschool child's awareness and anticipation of adult sex-roles. *Sociometry,* 1966, **29,** 159–168.

138. Vinacke, W. E.: Stereotypes as social concepts. *J. soc. Psychol.,* 1957, **46,** 229–243.

139. Vroegh, K.: Masculinity and femininity in the preschool years. *Child Develpm.,* 1968, **39,** 1253–1257.

140. Wapner, S.: Age changes in perception of verticality and of the longitudinal body axis under body tilt. *J. exp. Child Psychol.,* 1968, **6,** 543–555.

141. Ward, W. D.: Variance of sex-role preference among boys and girls. *Psychol. Rep.,* 1968, **23,** 467–470.

142. Weiner, B., and J. J. Goodnow: Motor ability: Effects on memory. *Develpm. Psychol.,* 1970, **2,** 448.

143. Whiteman, M.: Children's conceptions of psychological causality. *Child Develpm.,* 1967, **38,** 143–155.

144. Wilcox, R. M.: Visual preferences of human infants for representations of the human face. *J. exp. Child Psychol.,* 1969, **7,** 10–20.

145. Wohlwill, J. F., and M. Wiener: Discrimination of form orientation in young children. *Child Develpm.,* 1964, **35,** 1113–1125.

146. Wolman, R. N.: A developmental study of the perception of people. *Genet. Psychol. Monogr.,* 1967, **76,** 95–140.

147. Woodruff, A. D.: *Basic concepts of teaching.* San Francisco: Chandler, 1961.

148. Wright, B., and L. Rainwater: The meanings of color. *J. gen. Psychol.,* 1962, **67,** 89–99.

149. Youniss, J., and A. DeS. Robertson: Projective visual imagery as a function of age and deafness. *Child Develpm.,* 1970, **41,** 215–224.

150. Zern, D.: The influence of certain child-rearing factors upon the development of a structural and salient sense of time. *Genet. Psychol. Monogr.,* 1970, **81,** 197–254.

151. Zigler, E., J. Levine, and L. Gould: Cognitive processes in the development of children's appreciation of humor. *Child Develpm.,* 1966, **37,** 507–518.

152. Zimet, S. F.: American elementary reading textbooks: A sociological review. *Teachers Coll. Rec.,* 1969, **70,** 331–340.

ENJOY
run·hop·skip·jump·litter
skate·leap·laugh·giggle
wiggle·jog·romp·swing·slide
frolic·climb·bicycle·stretch
read·relax·imbibe·play·sleep
The City of New York Parks, Recreation & Cultural Affairs Administration

PAUL MICHAEL

CHAPTER FIFTEEN Moral Development

LEARNING TO BEHAVE in a socially approved manner is a long, slow process which extends into adolescence. It is one of the important developmental tasks of childhood. Before the child enters school, he is expected to distinguish right from wrong in simple situations and to lay the foundations for the development of a conscience; before childhood is over, he is expected to develop a scale of values and a conscience to guide him when he must make a moral choice. Sooner or later, most children learn that it is to their personal advantage to conform to group mores, even though they may not always agree with them. As Wiggam (137) has stated:

> *Intelligent individuals know that right conduct is simply intelligent conduct—the conduct that gets the best results. . . . They tend to choose the right conduct simply because they see it is the course of action that promises the best consequences. An intelligent child or adult discovers he can get what he wants in life more easily and surely by honesty than by deception, by kindness than by cruelty, by accepting social duties than by dodging them.*

Some children, by contrast, are "socially stupid"; they violate the mores of the group either because they disapprove of them or because they feel they have the right to do as they please—that they are "above the law." But society does not condone violations of its mores. Such children pay the penalty in the form of social rejection—a penalty that is far more harmful to their egos than the temporary pleasure they receive from disregarding the social mores.

Meaning of Moral Behavior

The terms "moral" and "immoral" are so loosely used that their true significance is often overlooked or ignored. Therefore, before any attempt is made to discuss moral development, it is necessary to understand the meaning of these labels. The definitions given in Box 15-1 are the ones which will be used in this discussion.

No child can be expected to know all the mores of the group, and so when a child does things that the group regards as wrong, it is often assumed that his parents have not fulfilled their parental duty to teach him what the group expects. However, by the time the child reaches adolescence, society expects him to behave in accordance with the mores of the group. When he fails to do so, it is generally because he does not want to rather than because he is ignorant of society's expectations.

Behavior which may be called "true morality" not only conforms to social standards but also is carried out voluntarily. It comes with the transition from *external* to *internal authority* and consists of conduct regulated from within. It is accompanied by a feeling of personal responsibility for one's acts. It involves giving primary consideration to the welfare of the group while relegating personal desires or gains to a position of secondary importance. True morality is rarely found in children, but it should appear during the adolescent years.

Moral development of this kind has both an *intellectual* aspect and an *impulsive* aspect. The child must learn what is right and what is wrong, and as soon as he is old enough he must understand why it is so. He must have opportunities to take part in group activities so that he can learn what the group expects. In addition, he must develop the *desire* to do what is

Box 15-1

MEANING OF "MORAL"

Moral Behavior

Moral behavior means behavior in conformity with the moral code of the social group. Moral comes from the Latin word "mores," meaning manners, customs, and folkways.

Moral Concepts

Moral concepts are the rules of behavior to which the members of a culture have become accustomed and which determine the expected behavior patterns of all group members.

Immoral Behavior

Immoral behavior is behavior that fails to conform to social expectations. Such behavior is not due to ignorance of social expectations but to disapproval of social standards or to lack of feeling of obligation to conform.

Unmoral Behavior

Unmoral or nonmoral behavior is due to ignorance of what the social group expects rather than intentional violation of the group's standards. Some of the misbehavior of young children is unmoral rather than immoral.

right, to act for the common good, and to avoid wrong. This can be accomplished most successfully by associating pleasant reactions with what is right and unpleasant reactions with what is wrong. To ensure his willingness to act in a socially desirable way, the child must receive the approval of the group.

How Morality Is Learned

At birth, the child has no conscience and no scale of values. Thus he is nonmoral, or unmoral. Before he can behave in a moral way, he must learn what the group regards as right or wrong. He learns this primarily from the parent-child relationship, for the foundations of moral development are laid before the child comes in contact with the peer group.

No child can be expected to develop a moral code alone. He must be taught the group's standards of right and wrong and must build up a desire to do what the group considers right because of anticipated social approval or reward. Through contacts with others, especially with children and adults outside the home, he has an opportunity to see how they evaluate his behavior.

ROLE OF LAWS AND CUSTOMS IN MORAL DEVELOPMENT

In every social group, certain acts are considered either "right" or "wrong" because they further or are believed to further or hinder the welfare of the group members. The most important mores are incorporated into *laws,* with specific penalties for breaking them. Others, which are just as binding as the laws themselves, persist as *customs,* without specific penalties for breaking them.

Taking the material possessions of others, for example, is considered serious enough to hinder the welfare of the group. It is therefore a legal offense and has prescribed penalties attached to it. It is customary not to handle the possessions of another without his knowledge and consent. While violation of this custom will incur no legal action, social disapproval will be the penalty should there be any damage.

Moral standards vary from group to group, depending on what has been accepted by the groups as socially approved. Within a community, different social classes and religious groups often have their own individual codes of behavior even though there is uniformity in the more important mores. There are differences in standards of sex behavior, for example, for people of different social classes and for members of the two sexes, although the more important standards of sex behavior, such as those relating to rape or polygamy, are embodied in laws that are binding for both sexes and for all social classes.

The lawmakers set the pattern for the moral behavior of the social group. Parents and others who are responsible for guidance must then help the child learn to conform to this pattern. If the socially acceptable pattern of behavior is accompanied by satisfaction, it will be repeated and will become habitual.

Gradually, the child learns the rules of the group. He learns that he is expected to conform to the rules and regulations and to overcome his antisocial behavior. Variations in moral codes, however, slow down learning. If there is a conflict between the home code and that of his peers, the child may substitute the code of his peers for that learned in the home.

ROLE OF CONSCIENCE IN MORAL DEVELOPMENT

According to tradition, children are born with a "conscience," or the ability to *know* what is right or wrong. In keeping with this tradition is the belief that misbehavior is the result of some inherited weakness, the origin of which is ascribed to either the mother's or the father's side of the family. Those who hold to such beliefs maintain that the child cannot be reformed; as a result, they see little need of devoting time and effort to his moral training. The justification for corporal punishment was founded on the belief that such punishment would "drive out the devil" and thus make the "naturally bad" child into a good one.

Today, it is widely accepted that the child is not born with a conscience, but that right and wrong are learned (5, 52). As Eysenck has pointed out, "conscience" is a conditioned anxiety response to certain situations and actions, built up by pairing aggressive acts with punishment. It is an "internalized policeman" which is called by such names as "superego" and "inner light." Conscience is "usually conceived as some kind of *deus ex machina* implanted in the human being in some mysterious way, which ceaselessly keeps an eye on his activities, and gives him a sharp tweak whenever he deviates from the straight and narrow path of duty" (31).

The "voice of conscience" is thus the internalized standard which controls the individual's behavior. This standard is too complex for a young child to acquire; therefore, his behavior is controlled mainly by environmental restrictions. There is a gradual shift, however, from environmental to internalized controls. By the time the child approaches adolescence, the "internalized policeman" should have taken over much of the control of his behavior. By the time he reaches legal maturity, the transition should be complete.

ROLES OF GUILT AND SHAME IN MORAL DEVELOPMENT

When the child develops the "warning and punishing voice of conscience," he carries it with him wherever he goes and uses it as a guide to behavior. If his behavior does not come up to standard, he feels guilty, ashamed, or both. As Ausubel has said, *guilt* is a "special kind of negative self-evaluation which occurs when an individual acknowledges that his behavior is at variance with a given moral value to which he feels obligated to conform" (4).

Before guilt can develop, however, a person must *first* accept certain standards of right and wrong and good and bad as his own; *second,* he must accept the obligation of regulating his behavior to conform to whatever standards he has thus adopted and must feel accountable for lapses from these standards; and *third,* he must possess sufficient self-critical ability to recognize that a discrepancy between his behavior and his internalized values has occurred.

Shame, according to Ausubel's definition, is an "unpleasant emotional reaction of an individual to an actual or presumed negative judgment of himself by others resulting in self-depreciation vis-a-vis the group" (4). It can be nonmoral, as when a person commits a breach of propriety and is embarrassed, or moral, as when a person is unfavorably judged by others because his behavior has fallen below their moral standards. *Shame relies on external sanctions alone, though it may be accompanied by guilt. Guilt relies on both internal and external sanctions.*

In true morality, guilt must be present. The person must conform to the mores of the group through inner-directed standards rather than outer-directed standards. As Ausubel has explained, "Guilt is one of the most important psychological mechanisms through which an individual becomes socialized in the ways of his culture. It is also an important instrument for cultural survival since it constitutes a most efficient watchdog within each individual, serving to keep his behavior compatible with the moral values of the society in which he lives" (4). If a child felt no guilt, he would have little motivation to conform to social expectations.

Pattern of Moral Development

If true morality is to be attained, moral development must take place in two distinct phases: *first,* the development of moral behavior, and *second,* the development of moral concepts. Moral knowledge does not guarantee moral conduct because behavior is motivated by factors other than knowledge. Social pressures, how the child feels about himself and the way he is treated by his family and peers, his desires at the moment, and many other factors influence how he will behave when a choice must be made. Studies of honesty, for example, have revealed correlations of approximately .25 between moral knowledge and conduct (57).

DEVELOPMENT OF MORAL BEHAVIOR

The child can learn to behave in a socially approved manner through trial and error, through direct teaching, or through identification. Of the three, direct teaching and identification are not only the best methods but also the most widely used. Trial-and-error learning is time- and energy-consuming, and the end results are often far from satisfactory.

Direct Teaching. The whole purpose of discipline —which is direct teaching of moral concepts and behavior patterns—is to teach the child what is right and to pressure him to act as society expects. If a positive kind of discipline is used consistently, ethical conduct becomes habitual. When praise, social approval, and reward are associated with socially desirable behavior, ethical conduct is learned more quickly than otherwise.

Studies have revealed that learning to behave in a socially acceptable manner follows the same laws as all other learning. The child must *first learn to make correct specific responses in specific situations.* If the standards learned in the home, the school, and the play group are consistent, it will be easy for the child to see the similarity and thus, in time, *develop abstract concepts* of right and wrong. If standards differ from one situation to another, the child is confused and wonders why he is punished for an act which in another situation was ignored or looked upon as socially acceptable (33, 34, 104).

Transfer-of-training experiments have shown that transfer comes when the objective aspects of situations are similar. When they are different, transfer may not take place. Will the child who learns not to take money from a pocketbook, for example, know that he must not take money from cash registers? The objective features of the two situations are different, and consequently the child may not see the common features, which are so obvious to an adult (52, 124, 142).

Identification. In identification, the child takes over the values of another and models his behavior after the behavior of that person. This he does unconsciously, as compared with conscious imitation in which he intentionally tries to be like someone else. The child learns to do what the adult does as well as what the adult tells him to do. When a child identifies with a person he admires, without any pressure or direct teaching involved, he will imitate the patterns of behavior he observes in that person (63).

Identification as a source of learning moral behavior becomes increasingly important as children grow older and rebel against discipline in the home and school. Having someone with whom to identify fills the gap and provides the anchorage necessary to the development of moral behavior.

DEVELOPMENT OF MORAL CONCEPTS

The second phase of moral development consists of the learning of moral concepts, or the principles of right and wrong, in an abstract, verbal form. This, of course, is too advanced for a young child. Training in moral principles must therefore wait until the child has the mental capacity to generalize and to transfer a principle of conduct from one situation to another.

Studies of concept development have revealed that moral concepts are at first specific and relate to the specific situations in which they were learned. As the child's capacity for comprehending relationships increases, his concepts of right and wrong in different though related situations merge. As a result, general concepts are gradually learned as the child becomes able to recognize a common element in a variety of situations.

Since the preschool child is incapable of abstract thinking, he defines "good behavior" in terms of specific acts, such as "obeying mother" or "helping mother," and "bad behavior" in terms of not doing what his mother or father want him to do. By the time a child is 8 or 9 years old, his concepts become more generalized. For example, he realizes that "stealing is wrong" rather than that "it is wrong to steal a ball."

Generalized moral concepts which reflect social values are known as *moral values*. The moral values

Box 15-2

DIFFICULTIES IN LEARNING MORAL CONCEPTS

The Child's Intellectual Development

A low level of intelligence makes it difficult for the child to understand the teaching of moral concepts and to perceive the situations in which they apply.

Kind of Teaching

Adults often tell the child what is "wrong" and what he should not do rather than what is "right" and what he should do. Too much emphasis is placed on the negative aspect of moral codes and too little on the positive, and so the path to goodness is undefined.

Changes in Social Values

Since the child's moral values reflect social values, they must change if the social values change. This is more confusing to a child than to an adolescent or adult. Changes in some concepts of right and wrong are shown in Figure 15-1.

Different Moral Codes

Children are confused when they learn that not everyone accepts a single moral code. Inconsistencies between what parents and teachers tell children to do and what they themselves do add further confusion to children's ideas about what is "right" and "wrong."

Variations with Different Situations

Subtle differences in moral values are difficult for a child to comprehend. If, for example, he has been taught that it is right to share his toys with his friends, it is hard to understand why sharing his schoolwork with them is regarded as "cheating."

Conflict with Social Pressures

Concepts approved in one group with which the child is identified may be regarded as inappropriate by another. When a child learns that it is "wrong" to fight and also learns that the social group considers him a sissy if he does not fight back when someone attacks him, he is confused about what action he should take to win social approval.

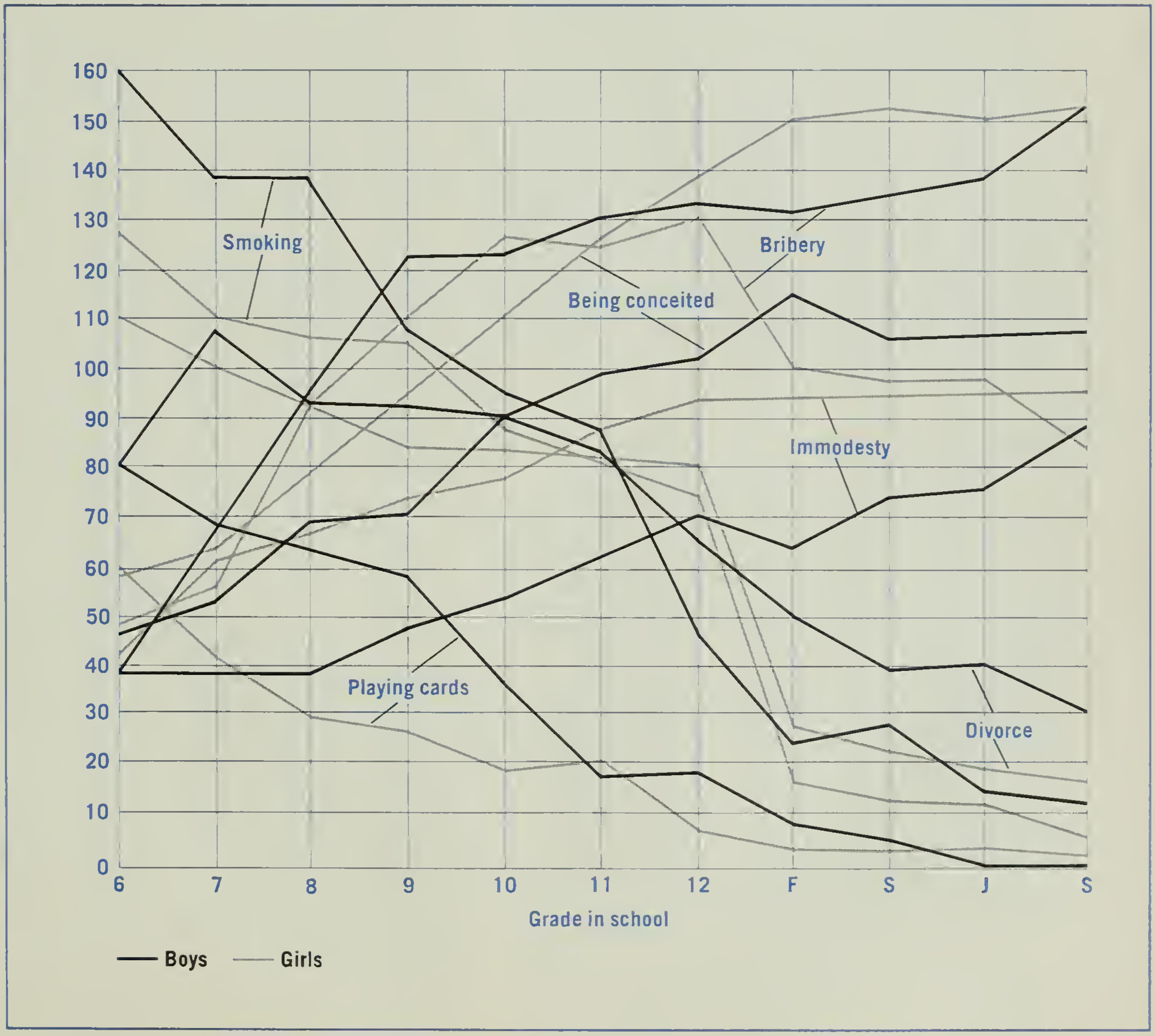
of the child change as he associates with more people and with people whose values differ from those of his parents. However, by the time he reaches adolescence, his moral code is fairly well formed, though it is still open to change if subjected to strong environmental pressures. When changes do occur, they usually involve a shift in emphasis, and this shift is generally in the direction of conventional morality or the moral code of adult society (63, 96).

Difficulties in Learning Moral Concepts. Learning the moral values of the social group takes time, just as learning specific moral concepts does. This learning is made difficult for the child by a number of factors, the most important of which are given in Box 15–2.

In learning moral values, the child may be confused about what the social group expects. This will have adverse effects on his moral development.

First, confusion slows the learning process. When

Figure 15–1. Changes with age in things thought wrong. (Based on unpublished data of S. L. Pressey. Adapted from S. L. Pressey and R. G. Kuhlen: Psychological development through the life span. *Harper & Row, 1957. Used by permission.)*



there is a conflict between the code of the home and that of the peer group, the child must decide which to follow. If his decision is in favor of the peer group, he will have to relearn at least part of what he learned at home; if it is in favor of the home, he will try to reconcile the two codes by modifying each.

Second, confusion leads the child to question the fairness of the concepts. As his social horizons broaden, he discovers that his friends are sometimes governed by moral concepts that differ from his own. Rebellion against moral concepts on the basis of their fairness generally reaches its peak during the gang age and extends into adolescence.

Third, and most seriously, confusion in moral concepts has an impact on moral decisions. When, for example, a conflict arises between the moral values of one social group and another, the child must decide which moral code he prefers to follow and then be prepared to accept the punishment and rejection of the other social group whose code he has violated. The more anxious a child is for group acceptance, the more "group-linked" he will be in his moral decisions when he is with the group. He may, however, act differently when he is away from the group or when he feels that the group will not learn of his behavior. To maintain their status in the group, many children do things with their gangs that they would not do if they were alone (6, 21, 22, 96).

Discipline

The popular concept of "discipline" is synonymous with "punishment." According to this concept, discipline is used only when the child violates the rules and regulations set down by parents, teachers, or adults in charge of the affairs of the community in which he lives.

Used correctly, discipline is, as DuBois has said, a "process of training and learning that fosters growth and development" (28). It comes from the same word as "disciple"—one who learns from or voluntarily follows a leader. The parents and teachers are the leaders, and the child is the disciple who learns from them the ways of life that lead to usefulness and happiness. Discipline is thus society's way of teaching the child the moral behavior approved by the group.

In discussing the elements of discipline, Hoffman states that "all discipline techniques have power assertive, love withdrawal and inductive components" (52). This means, *first,* that discipline generates a certain amount of anger by preventing the child from doing motivated acts; *second,* that it communicates some disapproval by the parent or teacher; and *third,* that it affects the learning of socially desirable behavior (52).

The goal of all discipline is to mold the child so that he will be able to adjust to the traditional roles prescribed by the cultural group with which he is identified. As there is no single cultural pattern, however, there is no overall philosophy of child training to influence the disciplinary methods used. Thus the specific methods used within a cultural group vary widely, even though all have the same objective. Bakwin and Bakwin (5) have commented:

> *Disciplinary action, to justify itself, must serve a useful purpose and should not be made to serve as an outlet for the disciplinarian's offended sense of dignity or as an emotional release. The purpose of discipline is not to make the child obey. The parent must learn to accept failure and poor behavior on the part of the child without feeling personally thwarted. "He can't get away with that with me" is not an adequate reason for disciplinary action.*

SOCIAL ATTITUDES TOWARD DISCIPLINE

Discipline has always been regarded as essential to the child's development, but ideas about what constitutes good discipline have undergone many changes. In the American culture, the strict, authoritarian discipline of earlier centuries, which was based on social customs and religious principles, has been replaced, in recent decades by more lenient and, sometimes, even laissez-faire attitudes.

Bakwin and Bakwin have given the following reasons for changes in social attitudes toward discipline: the loss of influence of formal religion; the popularity of psychoanalysis with its emphasis on the dire effects of frustration and inhibition; the centering of attention on emotional development rather than spiritual development; the false doctrine that mistakes in child training register themselves permanently in the child's psyche; the consequent loss of parental self-confidence and, with it, authority; and a clearer but as yet incomplete understanding of the principles underlying child rearing. Furthermore, many parents are unwilling to make the effort necessary for proper discipline. They often fear that discipline will bring on resentments which will make their relationship with the older child difficult and unpleasant (5).

In all cultures and at all times in history, the methods of discipline used to achieve the common good depended on the culture's notions of the nature of man and the beliefs of the group relating to supernatural powers. Where people believe that sinfulness is innate, society sanctions cruel and punitive methods of discipline. Where they believe in the malevolence of the supernatural world, cruel punishment is also used, and emphasis is on rigid training. By contrast, groups believing in the benevolence of the supernatural world favor more relaxed forms of discipline with less emphasis on punishment (5, 66).

In recent years, there has been a growing belief that wrong behavior is the result of the child's training rather than of innate sinfulness. This transition has led to the development of two conflicting concepts of discipline, "negative" and "positive." According to the *negative* concept, discipline means control by *external* authority, usually arbitrarily applied. It is a form of restraint through distasteful or painful means. This is synonymous with punishment. Punishment does not, however, always weaken the individual's tendencies to act in a socially disapproved manner, nor does it guarantee that the abandoned activity will be replaced by more acceptable behavior.

The *positive* concept of discipline is synonymous with education and counseling in that it emphasizes *inner* growth—self-discipline and self-control. This, in turn, leads to motivation from within. Negative discipline forces immaturity on the individual, while positive discipline encourages maturity. Since the principal function of discipline is to teach the acceptance of needful restraint and to help direct the child's energies into useful and socially acceptable channels, positive discipline will achieve this end more successfully than negative discipline (9).

NEED FOR DISCIPLINE

It has always been believed that children need discipline, but there have been changes in attitudes about why they need it. In the past, it was believed that discipline was necessary to ensure that individuals would adhere to the standards that society established and would tolerate no deviations from. Today it is recognized that the child needs discipline if he is to be a happy, well-adjusted person. Vincent and Martin have said, "Everyone needs discipline (rules of conduct) in order to adjust his needs and desires to those of others, and in order to keep the affection and approval of people around him" (131).

Discipline is essential to the child's development because it fills certain of his needs and thus adds to his happiness and to good personal and social adjustments. Some of the many needs filled by discipline are explained in Box 15-3 (35, 111, 131).

Variations in Need for Discipline. Children differ in their *hereditary makeup* and in their *rate of maturation;* therefore, discipline that is developmentally appropriate for one child may not be appropriate for another of the same age. A few kind words, for example, may teach one child not to play with matches, while another of the same age may not understand the words used in the prohibition and may need a tap on the fingers to make him understand. Older children need a different kind of discipline. Instead of merely being told what to do and what not to do, they need an explanation of why certain forms of behavior are acceptable and others are not. This will broaden their moral concepts and motivate them to do what is expected.

The need for discipline varies according to the *time of day* (20). Figure 15-2 shows when discipline is most often needed for children of different ages.

The *activity* in which the child is engaged likewise affects the need for discipline. Discipline is most likely to be needed in connection with routine activities, such as eating, going to bed, or preparing for school, and is least likely to be needed when the child is free to play as he chooses (20). If a child dawdles over a meal or resists going to bed, there is more need

Box 15-3

CHILDHOOD NEEDS FULFILLED BY DISCIPLINE

- Discipline gives the child a feeling of security by telling him what he may or may not do.
- By helping the child avoid frequent feelings of guilt which lead to unhappiness and poor adjustment, discipline enables him to live according to standards approved by the social group.
- Through discipline, the child learns to behave in a way that leads to praise, which he interprets as an indication of love—an essential to successful adjustment.
- Appropriate discipline serves as an ego-bolstering motivation which encourages the child to accomplish what is required of him.
- Discipline helps the child to develop a conscience—the "internalized voice" that guides him in making his own decisions.

for discipline than if he is reading or playing with his toys.

The need for discipline varies on *different days* of the week, with weekends and Mondays the usual times for increased discipline. And, finally, *older* children need discipline less often than younger children. It has been reported that 3-year-olds are involved in disciplinary incidents, on the average, approximately once a day; 6-year-olds, every other day; and 9-year-olds, every fourth day. As the child grows older, he can communicate better and thus understand what is expected of him (20).

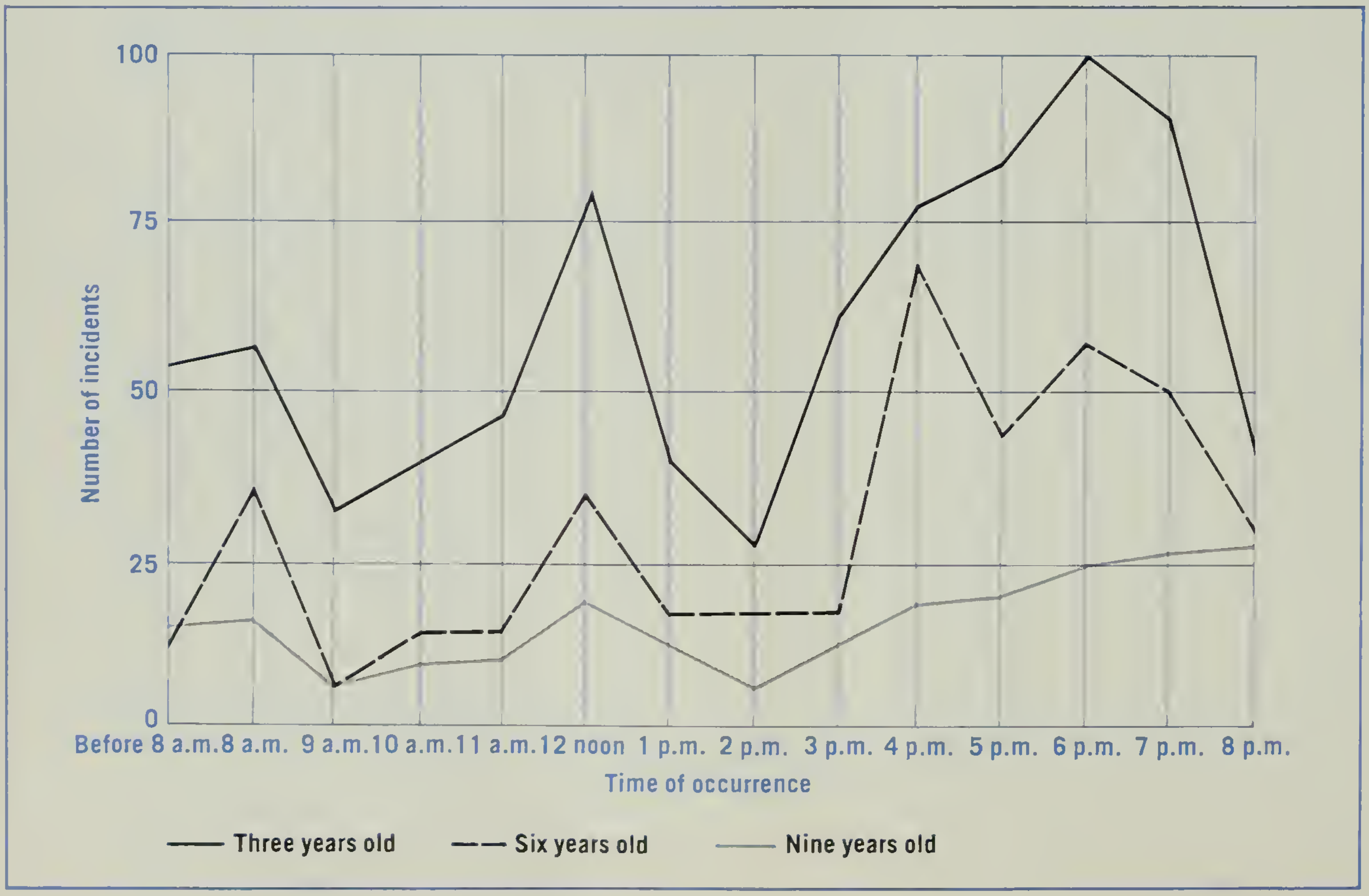
ESSENTIALS IN DISCIPLINE

Discipline consists primarily of habit formation. The principles of learning involved in habit formation are essential in discipline if it is to be successful. Regardless of the technique of discipline used, the omission of any of the elements discussed below will result in unfavorable attitudes on the part of the child and in behavior that will not be socially approved.

Rules. One essential of discipline is rules. Rules, like laws, serve two useful purposes in discipline. First, they act as an *educational agency* to acquaint the child with the standards of conduct that are acceptable to the group. As Settlage has explained, "In setting limits for the child we foster the development of personality strength and in our decision as to what the limits shall be we communicate our personal and cultural value system" (111). Second, rules *restrain undesirable behavior.*

How many rules there will be will depend to some extent upon the size of the family and the disciplinary technique used. The more authoritarian the discipline,

Figure 15–2. Frequency of discipline by the hour of occurrence and age of the child. (Adapted from E. Clifford, Discipline in the home: A controlled observational study of parental practices, J. genet. Psychol., *1959,* **95,** *45–82. Used by permission.)*



the greater the number of rules. The number of rules likewise varies according to the activity. In most families, more rules are needed for outdoor play, for example, than for television watching (131).

Without rules, the child would do as he pleased; he would then find that the social group would not tolerate him. By the end of childhood, rules and laws should not be needed if discipline has been of the right sort. But since many children as well as adolescents and adults would quickly lapse into undesirable behavior without rules to guide them, rules continue to serve as a preventative to antisocial behavior.

Consistency. The second essential of discipline is consistency. Unless discipline is consistent, the child is at a loss to know what to do and whom to obey. In discussing the importance of consistency, Settlage has emphasized: "To set a limit is to act on a value judgment; and if one is not sure of what he values, then confusion, inconsistency, and ambivalence result" (111).

Inconsistency in training slows down the learning process, while consistency speeds it up. With consistent training, the child knows what is expected of him. With inconsistent training, he does not know what is expected and is often confused. As he grows older, the child who does not know what he should do may develop patterns of behavior that fail to measure up to social expectations. In addition, he may lose respect for the disciplinarian and for all discipline.

Causes of Inconsistency. The causes of inconsistency in disciplining children are numerous. Many parents and teachers are either unsure of what they want the child to do or unsure of what they should do to achieve the behavior they expect. Most parents —and many teachers as well—do not have a single pervasive philosophy about child training, nor are they consistent in the application of the method they generally use. They vary from leniency bordering on complete lack of control to such rigid standards that the child is given little freedom of action.

Not only do parents vacillate between lenient and strict discipline, but they often use a trial-and-error approach to see what method works best. Within one disciplinary incident, for example, parents often use as many as seven different methods of control; they try emotional appeals, humor, appeals to the child's self-esteem, bribes and coaxing, ignoring the child's behavior, punishing him, and diverting his attention. Furthermore, most parents have no one consistent method of punishment.

Fluctuation in the warmth of the parent-child relationship due to changes in the child's attitude toward his parents and his parents' attitudes toward him is a common cause of inconsistency in discipline. When the relationship between parent and child is warm, for example, discipline is lenient, but when the relationship is strained, discipline becomes severe. If the child tries to live up to parental expectations, parents tend to be more lenient than if he makes little effort to do so.

Family conflicts about the best methods of discipline tend to undermine the disciplinarian's feeling of adequacy and lead to inconsistency. Many middle-class mothers are confused by the conflicting recommendations found in parent-oriented literature and made by members of their families.

Perhaps the most common cause of inconsistency comes from the different concepts of discipline held by fathers and mothers. Vincent and Martin have written, "The most destructive pattern is the one in which two parents operate in the same home, one at one extreme, the other at the opposite extreme in discipline" (131). When there is disagreement, parents tend to settle upon a strict rather than a permissive position. Each parent seems to feel that he should be stricter than he is, and each fears that the other will be jealous or resentful if he appears to be too lenient (101).

Effects of Inconsistent Discipline. Severity or laxity of discipline, per se, is not as damaging to the child as inconsistency (9). Figure 15–3 shows how inconsistent discipline affects the child. Studies have revealed that children who later become delinquents and criminals had inconsistent discipline, while children who were subjected to severe, but consistent, discipline rarely became delinquents or criminals (38).

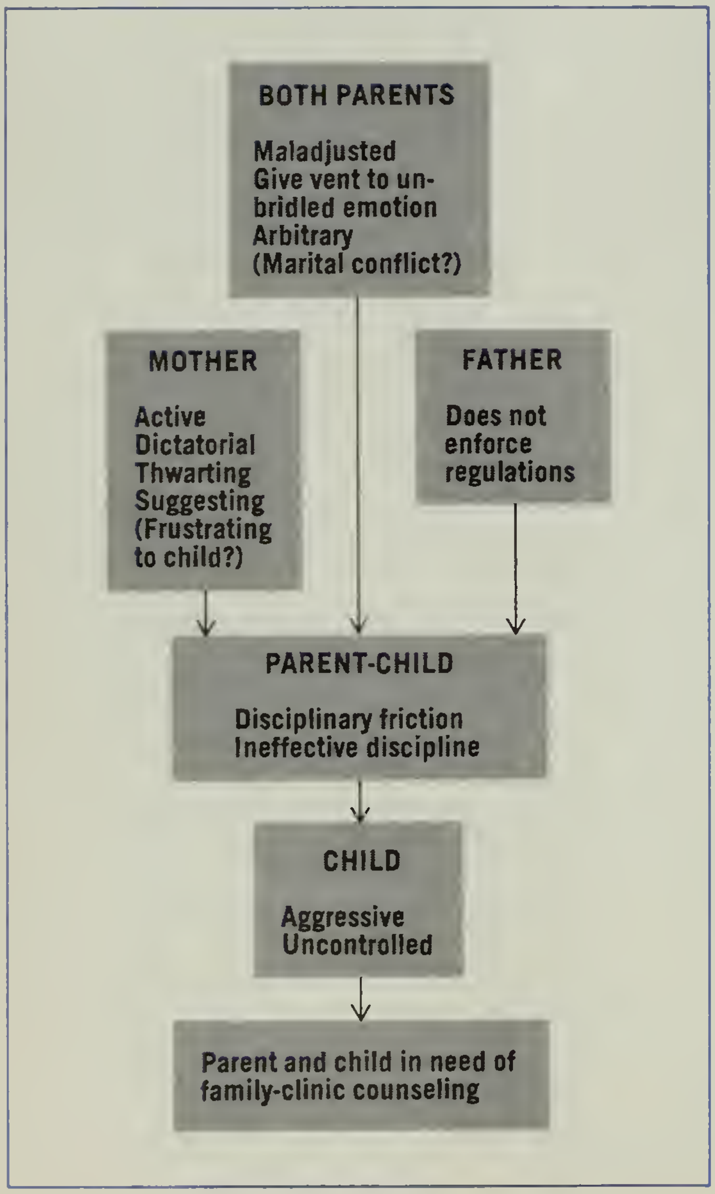
While it is not essential that parents agree entirely about discipline, it is essential that they support one another in specific instances, such as giving permission to do something or withholding permission. Otherwise, the child will quickly learn to play one parent against the other and thus be able to do much as he pleases.

Criticism of one parent by the other regarding the method of discipline used is even more damaging than inconsistency. If the criticism is not made in front of the child, it hurts the child indirectly by making the criticized parent feel insecure in his disciplinary role. If made in front of the child, it hurts the child directly by weakening his respect for the disciplinarian. In time, this attitude may spread to all in authority. Husbands tend to be more critical than wives of the disciplinary methods used by their spouses. Middle-class husbands, however, are less critical than lower-class husbands (110).

Punishment. The third essential of discipline is punishment. Reward, too, plays an important role and is discussed below. Punishment serves to inhibit undesirable acts, while reward serves to reinforce desirable acts. If they are to contribute to healthy mental and emotional growth, punishment and reward must be properly used. As Vincent and Martin (131) have explained:

> *Both rewards and punishment need to be deserved and understood by the child. If either reward or punishment is given when not deserved, the child is confused and misled. A question may arise here as to what is meant by "deserved." Generally speaking, reward or punishment is deserved if the child, who has had the opportunity to learn from previous experience what is desirable behavior, has either performed that behavior better than might have been reasonably expected, or has failed to perform it as well as might be expected.*

Figure 15–3. Effects of inconsistent parental behavior on the child. (Adapted from W. C. Becker, D. R. Peterson, L. A. Hellmer, B. J. Shoemaker, and H. C. Quary, Factors in parental behavior and personality as related to problem behavior in children, J. consult. Psychol., *1959,* **23**, *107–118. Used by permission.)*



Positive motivation, in the form of reward, brings better results than negative motivation, in the form of punishment. Punishment, however, should not be eliminated. It, too, has an educational value. Recognition of the possible consequences of an act is essential to moral behavior. Since their recognition necessitates an evaluation, the child must learn to weigh alternative acts and the consequences associated with each. He thus learns to decide for himself whether the act is worth its price.

Function of Punishment. At every age and among people of all cultures, punishment is used to deter undesirable behavior when other methods fail. Bakwin and Bakwin (5) have written:

> *The need for punishment among children means that discipline has broken down. Since neither training methods nor children are perfect, punishable situations will arise from time to time. Under ordinary circumstances, such occasions will be rare; if they are frequent, something is wrong with the training procedures. If the child learns early in life that misbehavior invites discomfort or disapproval, whereas desirable behavior is appreciated, he will soon come to behave in an acceptable manner.*

Punishment serves two major functions in discipline. They are, *first,* to deter the repetition of socially undesirable acts and, *second,* to show the child what the social group regards as right or wrong. If the child learns that a wrong act will inevitably result in a given punishment, he will think twice before carrying it out.

Since the child's criterion of the seriousness of his offense is the severity of the punishment he receives, punishment must be consistent. Unfortunately, most parents and other adults punish in anger, and so this criterion loses much of its value.

Kinds of Punishment. Parents often think of *corporal punishment,* especially slapping and spanking, as the most effective way of dealing with the wrongdoings of a child. This attitude may come from acceptance of the traditional belief that sparing the rod spoils the child, or it may mean that parents have not discovered better ways of handling the child. While corporal punishment is generally relatively mild, it may be so severe that the child will be permanently damaged or even killed.

Certain forms of punishment, other than corporal punishment, are widely used in our culture today. These include isolating the child, depriving him of some accustomed privilege, such as watching his favorite television program, frightening him by telling him that the "policeman will get him," shaming him, ignoring him, or threatening the withdrawal of love. Most of these, as is true of corporal punishment, are aimed at restricting the child's behavior. Many are used for older children as well as for preschoolers.

Evaluation of Punishment. Contrary to popular opinion, corporal punishment is one of the least satisfactory forms of punishment because the child seldom associates it with the act for which he is being punished. Since the anger of the adult is a more dominant factor in the situation than the punishable act itself, the child tends to associate the disciplinarian with pain rather than the wrong deed.

If corporal punishment is used, it should be administered while the prohibited act is going on. When punishment is delayed, the child does not associate the act and the punishment, and the value of the punishment is lost.

Corporal punishment, if used at all, should be used only up to about 2 or 3 years of age. If it is used after that age, the child must be made to feel that his parents love him, in spite of his misdeeds.

The most effective punishment has a direct relationship to the act. For that reason, scolding, depriving the child of pleasure, isolating him from his playmates when the wrong act had nothing to do with them, or putting him to bed without supper are not as effective as the adults who use them expect them to be. They are easy to use, it is true, and require little if any ingenuity, but they do not serve the purpose as well as individualized punishment. They have a number of advantages, however, as compared with corporal punishment. *First,* no physical pain is involved; *second,* the duration and severity of the punishment can be varied; *third,* no long period of time elapses between the act and the punishment during which the child feels abused or can plan revenge on the disciplinarian; *fourth,* when the punishment is over, a favorable relationship can be established with the punisher; and, *fifth,* the punisher's personal feelings are not revealed as overtly as in corporal punishment (5).

Studies of the effects of punishment have established a number of essential elements of *good* punishment —punishment that teaches the child why society will not tolerate certain patterns of behavior but does not arouse resentments that kill the child's motivation to put his learning into practice. The major essentials of good punishment are shown in Box 15–4 (11, 70, 72, 77, 85, 92).

Rewards. The fourth essential of discipline is the use of rewards. The authoritarian adult who depends too much on the use of punishment is likely to lose sight of the value of using rewards. If the child is to learn to act in a socially desirable way, it must be worth his while to do so. Therefore, rewards must be used to build up pleasant associations with the desired be-

Box 15–4

ESSENTIALS OF GOOD PUNISHMENT

- Punishment must be suited to the transgression, and it must follow the transgression as soon as possible so that the child will associate the two. If a child throws food on the floor in a fit of temper, he must be made to clean it up immediately.
- The punishment used must be consistent so that the child will know that whenever he breaks a rule, punishment is inevitable.
- Whatever form of punishment is used, it should be impersonal so that the child will not interpret it as "meanness" on the part of the punisher.
- Punishment must be constructive so as to motivate socially approved behavior in the future.
- An explanation of the reason for the punishment must accompany the punishment so that the child will see it as fair and just.
- Punishment must lead to conscience-building to guarantee future inner control of behavior.
- Punishment must not humiliate the child and arouse his resentment.

havior. The importance of rewards has been discussed by Vincent and Martin (131):

> *Severity does not, as a rule, teach a child to do a task as well as he would do it with encouragement. No child, for example, can be taught to use the toilet, or any other activity involving muscle control, as effectively under strict and grim disciplinary methods as he can by encouragement and gentle persuasion. Scolding a child who stutters only makes him stutter more. Beating a child physically may fail to stop his undesirable behavior, and even if it does succeed in changing the offending behavior it may, as we say, "break his will" by shattering his self-esteem. . . . Praise for accomplishment is effective in helping children to want to improve behavior and skills. Parental approval is a potent instrument in discipline.*

In spite of the fact that parental approval is a "potent instrument," parents tend to use less approval and more punishment as children grow older.

Rewards versus Bribes. Many adults disapprove of rewarding a child for socially approved behavior because they think of rewards as a form of bribery. The two are quite different, however. A *bribe* is something used to induce or influence an act, and a *reward* is something given in return for an act. In bribery, the child is promised a material object or a special privilege if he will behave the way a parent, teacher, or some other adult in authority wants him to behave. In rewarding, the child is given the material possession, special privilege, or adult commendation *after* he has behaved in a socially approved way.

While bribes can usually be counted on to bring about the desired behavior, they are bad for three reasons: They motivate the child to behave in a socially approved way only when he is paid to do so and, as a result, do not lead to the development of inner control. They lack the educational value of teaching the child to assume responsibility for control over his own behavior. And they give the child the choice of not behaving if he feels he is not being paid enough.

By contrast, rewards associate pleasure with an act, and this encourages the child to repeat it. By so doing, the child develops a strong motivation to assume control of his behavior without the necessity for control from others. However, if rewards are used too frequently, they begin to assume the characteristics of bribery. The child learns to *expect* a reward whenever he behaves in a socially approved way and, if a reward is not forthcoming, it weakens his motivation for the future.

Kinds of Reward. Rewards should have a *direct* relationship to the desired act so that they will motivate the child to repeat it. Perhaps the simplest and yet most effective reward is social recognition. A comment such as, "You cleaned up your room very well, Johnnie," can always be tied in with the act. At the same time, it satisfies the child's normal desire for praise. Vincent and Martin emphasize that "praise needs to be used judiciously, not just when the parent happens to feel in a pleasant mood, but when the child has done something really well. Otherwise the child can establish no reasonable standard by which he can measure his achievements" (131).

Gifts are sometimes given as rewards for good behavior. A gift may be a token of affection, it may represent a respect for the child's abilities and achievements, it may serve as a form of encouragement, or it may be a token of confidence. In any instance, gifts add to the child's feeling of self-importance.

Effects of Rewards. It is commonly believed that praising or rewarding a child for good behavior will make him conceited, but it has been found that when positive techniques, in the form of praise, encouragement, or balanced criticism, are used in school, desirable responses outweigh the undesirable in the ratio of 46 to 1. Even children who at first seem recalcitrant later show desirable responses (57).

As children grow older, rewards serve as a powerful source of motivation for them to continue to try to live up to expectations. If their efforts go unnoticed or unappreciated, they have little motivation, and what motivation they may have is often dampened by criticism and nagging about what they have done wrong. As children grow older, praise has a stronger motivational value than other rewards.

DISCIPLINARY TECHNIQUES

In general, disciplinary techniques may be divided into three broad categories: authoritarian, democratic, and permissive. The important characteristics of each are discussed below.

Authoritarian Disciplinary Techniques. Strict rules and regulations to enforce the desired behavior characterize all kinds of authoritarian discipline. Techniques include severe punishment for failure to come up to expected standards and little or no recognition, praise, or other signs of approval when the child meets the expected standards.

Authoritarian discipline may range from reasonable restraints on the child's behavior to *rigid* restraints that permit him no freedom of action except that which conforms to prescribed standards. Authoritarian discipline always means control through *external* force in the form of punishment, especially corporal punishment. Even as the child grows older, parents who use rigid authoritarian methods rarely relax their control or abandon corporal punishment. Furthermore, they do not encourage the child to make decisions regarding his acts; they tell him how to act. Thus he is deprived of the opportunity to learn to control his own behavior.

In families where authoritarian discipline is more reasonable, the child is still restricted in what he may do, and the decision for his acts is made for him. His wishes are not completely disregarded, however, and there are fewer irrational restrictions, such as forbidding the child to do what his peers do.

Democratic Disciplinary Techniques. Democratic methods of discipline employ explanation, discussion, and reasoning to help the child understand why he is expected to behave in a certain way. They emphasize the educational aspect of discipline rather than the punitive. Punishment is never harsh; it is used only when there is evidence that the child *willfully* refused to do what he was expected to do.

When the child's behavior comes up to expected standards, the democratic disciplinarian rewards him with praise or some other expression of approval. Democratic discipline tries to develop *internal* controls by educating the child to behave in the approved manner and by showing him the rewards for doing so.

Democratic methods may range from extreme leniency and little control to careful planning of the child's activities so that his energies are directed into approved channels and diverted from activities frowned on by the social group.

Permissive Disciplinary Techniques. Permissive discipline is really little or no discipline. It does not usually guide the child into socially approved patterns of behavior and does not employ punishment. Some parents and teachers, mistaking permissiveness for *laissez faire*, allow the child to grope through situations too difficult for him to cope with alone with no guidance or control.

For many parents, permissive discipline is a protest against the rigid and harsh discipline under which they were brought up. In such cases, the child often has no limits or boundaries set on what he may do; he is permitted to make his own decisions and act on them in practically any way he wishes.

In discussing parental reasons for using permissive discipline, Vincent and Martin (131) have pointed out:

> *Some parents see in their relationships with their children only the necessity to make them happy as each day goes by, not recognizing that this treatment may deprive the children of the strength that comes from wise restriction, and that it is likely to give them a false idea of what to expect from life outside the home. Such parents permit the child to select his activities as nearly as they can make it possible for him to do so. They give him a minimum of guidance, and may even consider guidance as domination of the child's personality. They lean over backwards to get the child to express his ideas, to say what he wants to say, in order to encourage his "self-expression." They state their own ideas as little as possible in order not to "indoctrinate" him. They praise his every effort in order to give him "self-confidence." They avoid correcting him or calling his errors to his attention so as not to give him an "inferiority complex." Parents who behave this way fail to realize that children need help in knowing what is good for them, and that only when children are sure that their parents will protect them and will see that they do what is good for them, can they feel genuinely secure.*

Parents and teachers usually have *reasons* for using the disciplinary technique they choose; the choice is rarely based on whim. Box 15–5 shows some of the chief factors that influence the choice of disciplinary techniques.

Since the choice of disciplinary techniques is based on reasons which parents and teachers consider valid, the chances of convincing them that the technique they have chosen is not as good as another are slim. They tend to cling to the chosen technique, though they may modify it to some extent as they discover, from their own experiences, that it does not work as well as anticipated.

EVALUATION OF DISCIPLINE

Discipline should not be evaluated in terms of its immediate results. While a child can be forced into a pattern of adult-approved behavior and made into the "perfect child," the long-term harm done to his personality may outweigh any temporary advantages. As DuBois (28) has written:

> *Parents must think in terms not only of the immediate behavior at two, six, or sixteen years . . . but also of the ultimate results of discipline at twenty, forty, and sixty,*

when parental control is no longer in force. Then the individual must be constructively self-directed or else suffer remorse because of violation of his personal code or be punished by society when his conduct is contrary to its laws.

Certain wholesome and unwholesome functions of discipline must be kept in mind when disciplinary techniques are evaluated. Some of the major functions suggested by Havighurst (46) are given in Box 15–6.

Wholesome discipline is always *consistent.* The child who is disciplined consistently is better adjusted than the child whose discipline is inconsistent. Children who are well adjusted have a sense of freedom; their behavior is well integrated, and they have a realistic approach to life situations. In addition, they develop feelings of adequacy and self-confidence. By contrast, children who are poorly adjusted develop feelings of inadequacy and loss of self-confidence which increase with age. Even more serious, children whose discipline is inconsistent learn to be secretive, sly, and dishonest in an attempt to avoid punishment (37, 44, 52, 78).

When the child is in the process of learning to be

Box 15–5

FACTORS INFLUENCING CHOICE OF DISCIPLINARY TECHNIQUES

Similarity to Discipline Used by Parents

If parents and teachers feel that their parents did a good job in training them, they use a similar technique in training the children they are responsible for; if they feel the technique their parents used was wrong, they usually swing to an opposite technique.

Conformity to Group-approved Techniques

All parents and teachers, but especially those who are young and inexperienced, are more influenced by what members of their group consider the "best" techniques than by their own convictions about what is best.

Age of Parents or Teachers

Young parents and teachers tend to be more democratic and permissive than those who are older. They tend to exercise less and less control as children approach adolescence.

Training for Parenthood or Teaching

Adults who have had courses in child care are more understanding of children and their needs and use more democratic techniques than adults who lack such training.

Sex of Disciplinarian

Women generally have a better understanding of children and their needs than men, and they tend to be less authoritarian.

Socioeconomic Status

Middle-class parents and teachers tend to be stricter, more coercive, and less tolerant than those of the upper and lower classes, but they are more consistent. The better educated they are, the more they favor democratic discipline.

Concept of Adult Role

Parents who hold to the traditional concept of the parental role tend to be more authoritarian than parents who have accepted a more modern concept. Teachers who believe that there should be a rigid routine in the classroom use more authoritarian discipline than those who have a democratic concept of teaching.

Sex of Child

Parents are generally stricter with their daughters than with their sons. Teachers, likewise, are stricter with girls.

Age of Child

Authoritarian discipline is far more commonly used for young children than for those who are older. Regardless of what technique they favor, most parents and teachers feel that young children cannot understand explanations, so they concentrate on authoritarian control.

Disciplinary Situation

Fears and anxieties are usually handled nonpunitively, while defiance of authority, negativism, and aggression are more likely to encourage authoritarian control.

independent, authoritarian discipline is far more damaging than earlier, when he is too immature to be anything but dependent, or later, when adult attitudes are far less important than peer attitudes. In the same way, overpermissiveness at the time when the child is just learning to make adjustments outside the home may give the child the feeling that his parents do not care enough about him to help him make the adjustments; he may develop attitudes of resentment toward them if he fails to adjust satisfactorily. After the child has learned to make adjustments outside the home he will interpret permissiveness to mean that his parents believe he is capable of managing his own affairs, and this will bolster his self-confidence.

Since different disciplinary techniques will, of necessity, have different effects on the behavior and personality pattern of the child, each of the major categories of disciplinary techniques will be evaluated separately, with an attempt to show their good and bad features.

Authoritarian Discipline. Even though authoritarian discipline in its strictest form is more damaging to a child at certain times during the developmental pattern than at others, there is *no* time when it does not leave an unfavorable mark on his behavior or personality. Overly strict parents who use harsh and punitive methods to achieve their ends may make the child conform to their standards and be a "good" child. But while there is surface goodness, there is apt to be smoldering resentment which will break out sooner or later, causing the child to do many things he otherwise would not have done.

The overdisciplined child feels that the world is hostile, and he acts accordingly. As Frank has said, "The stricter the parents, the stronger may be the revolt and the more outrageous the 'hell-raising' or the more submissive conformity to parents and priggish self-justification" (32). Too much rebellion against too strict discipline may eventually lead to delinquency.

If the child's resentments against overly strict discipline and harsh punishment lead to even harsher punishment, they may be "driven underground" and then find new channels of expression. They may be expressed in aggressiveness toward other children—especially younger siblings and members of minority groups—a hypercritical attitude toward all in authority, or fantasy in which the child wins out in his battle against the person whose restrictions he resents.

Regardless of the child's manner of expressing resentment, it is likely to lead to maladjustive behavior. As Davitz has stated, "Punishment and rejection give rise to fear; fear promotes defensive reactions; and the defensive reactions elicit further punishment. This is the vicious circle of maladjustment. The child lives in an interpersonal world of constant threat. The consequence is unhappiness and fear" (24). The "vicious circle" of punishment, which leads to maladjustive behavior, is illustrated in Figure 15-4.

In spite of the undesirable effects of very strict authoritarian discipline on the child's behavior, there is evidence that, in its less severe form, authoritarian discipline leads to socialization of the child. This is because the child, subjected to strict control by parents or teachers, learns to behave in a socially approved way. As a result, he is more socially acceptable to his peers and to adults than is the child who has been allowed to behave much as he pleases. And since he finds that others like him, the well-disciplined child likes social activities and wants to participate in them (44, 52, 86).

The child's *personality,* as well as his behavior, is unfavorably affected by overly strict discipline. There is a tendency for the strictly disciplined child to become sullen, obstinate, and negativistic in his attitudes toward anyone in authority. While the child may be

Box 15-6

WHOLESOME AND UNWHOLESOME FUNCTIONS OF DISCIPLINE

Wholesome Functions

- To teach the child that certain behaviors will always be followed by punishment while others will be followed by praise
- To teach the child a *reasonable* degree of conformity, but not too much conformity
- To help the child develop self-control and self-direction so that he can develop a conscience to guide his actions

Unwholesome Functions

- To intimidate the child
- To serve as a release for the disciplinarian's aggression

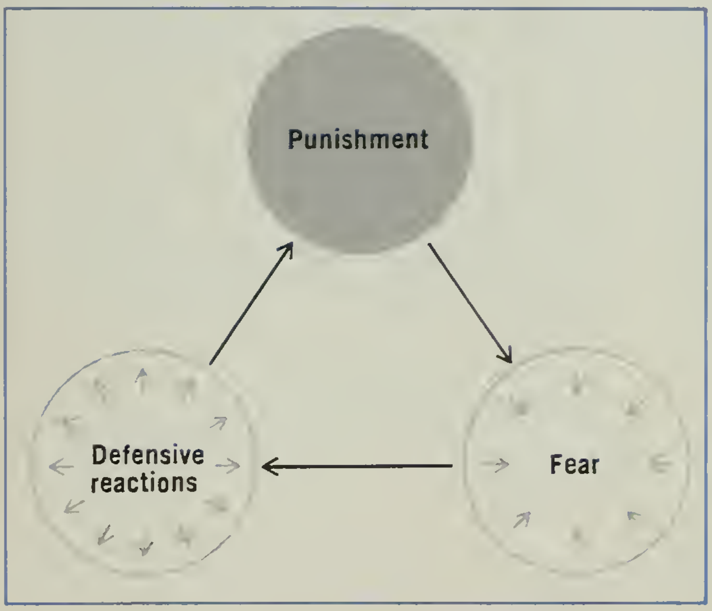
outwardly quiet, well behaved, and nonresistant, he often harbors deep resentments which make him unhappy and insecure and which restrict his curiosity, originality, and fancifulness and lead to lack of self-confidence (19).

Many children subjected to too much and too severe punishment learn to be sly, secretive, and dishonest in order to avoid punishment when they defy authority. Studies of the effects of child-training methods on the personality patterns of Chinese children, who, traditionally, are subjected to strict authoritarian discipline, have revealed that they often become withdrawn, shy, suspicious, sensitive, and introverted (117).

When parents inhibit their desire to use corporal punishment, they usually substitute "psychological punishment," such as withdrawal of love. This kind of punishment is extremely harsh and, if repeated too often, can have a devastating influence on the child's personality. Studies of psychiatric patients, for example, have revealed that they experienced more psychological than physical punishment during their childhood (39, 44).

Permissive Discipline. When discipline is too lenient, a child is confused and insecure. Because of limited experience and mental immaturity, which make it impossible for him to make decisions about behavior which will conform to social expectations, he does not know what he should or should not do. As a result, he is likely to become fearful, anxious, and excessively aggressive. In addition, he is likely to become resentful because he feels that his parents care too little about him to take the trouble to guide him and thus help him to avoid mistakes. It is not unusual for such a child to feel contempt for his parents' "softness."

Figure 15-4. The "vicious circle" of punishment. (Adapted from M. E. Breckenridge and E. L. Vincent: Child development*, 5th ed. Saunders, 1965. Used by permission.)*



The most serious effect of too lenient discipline comes from the reactions of people outside the home. In the school or neighborhood, the undisciplined child is soon labeled a "spoiled brat" or a "little monster"—neither label contributing to social acceptance. As Jersild (55) has pointed out:

> *If children have not been disciplined in a manner that would put a curb on their expectations from others, they are due for some hard jolts as they move on in the years. Without being aware of it, they may have illusions concerning their own rights and a vague notion of omnipotence which will clash sooner or later with the realities of life. The overindulgent parent, likewise, may be so forbearing and so patient that the child demands from others a degree of patience and forbearance which they will not be able to give him.*

Democratic Discipline. Democratic discipline leads to good personal and social adjustments. It results in independence in thinking, initiative in action, and a healthy, positive, confident self-concept which is reflected in active, outgoing, and spontaneous behavior.

Greater freedom in the home, characteristic of democratic discipline, shows itself in better cooperation, greater peristence in the face of obstacles, better self-control, greater creativity, and a friendlier approach to people. In the school, teachers who have a warm, friendly, cooperative relationship with their pupils find that their pupils make better personal and social adjustments, are less troublesome, and do better schoolwork.

In summarizing the findings of a study to determine the effects on behavior and personality of authoritarian versus democratic discipline, Watson stated, "It is impressive . . . to find no clear personality advantage associated in general with strict discipline in a good home. Where differences [in personality] do emerge, they are consistently to the credit of the more permissive upbringing" (135). By "permissive" Watson does not mean the overly permissive discipline evaluated above; he means the more democratic form, in which the child is respected as an individual and is permitted to guide his own behavior when he is able to do so.

CHILDREN'S REACTIONS TO DISCIPLINE

Young children are sensitive to the fairness of parents and teachers, and they become increasingly so as they grow older. If they consider the treatment they receive "unfair," they become resentful and feel that they have been abused. Whether the treatment is actually unfair or not is less important than the way the child interprets it. His grievances are important for two reasons: They affect his attitude toward people in authority and his willingness to try to conform to social expectations. And they affect his concept of himself. If he believes that he has been the victim of unfair treatment, serious personality disturbances may result.

Because of their limited knowledge and experience, young children tend to misinterpret discipline and the attitude of the disciplinarian toward them. A frown on the mother's face when she asks the child to stop doing something, for example, may be interpreted by the child to mean that the mother is *angry with him.* In reality, the frown may be totally unrelated to the child and what he is doing; it may come from a headache or from some previously annoying experience.

Even older children sometimes misinterpret the behavior and attitudes of others. This may result from making judgments on the basis of too few cues, or it may be a reflection of their own attitudes. In school, for example, the child may feel that the teacher's criticism of his behavior means that she dislikes him when, in reality, she wants to help him. If he has been accustomed to being criticized at home, he feels that *any* criticism from *any* source reflects an unfavorable attitude toward him. He does not look under the surface to see whether there was another motive behind the criticism. If a teacher has an authoritarian attitude toward her pupils and disbelieves what they say, they not only resent this but also feel that the teacher is unfair. Once a teacher or parent has created the impression of being unfair, children tend to interpret everything he does as unfair.

Unfavorable repercussions are most likely when children are kept from doing what members of the peer group are permitted to do. On the other hand, the child who feels that the discipline he receives is fair and that the restrictions on his behavior are for his own good will have a far more favorable attitude toward the restrictions and toward his parents than the child who feels that his parents are being "mean" or revengeful.

Most children feel that their parents should be firm or strict, that they should require obedience, and that they should not spoil them. Many feel, however, that their parents should criticize constructively and reason with them instead of punishing, at least until there is evidence that the child has willfully disobeyed. Many children react unfavorably to discipline because they feel that too little emphasis has been placed on teaching them what they are expected to do and too much on punishing them for things they did not know were wrong.

Discrepancies between Moral Concepts and Moral Behavior

Among adults as well as among children, there are many discrepancies between a person's moral code and his behavior. Abstract knowledge that it is wrong to cheat, for example, does not keep children from cheating when a situation arises in which they are tempted or when they find it to their personal advantage to do so. Similarly, children who say it is "wrong" to fight with their classmates are not always consistent in their behavior. As Pressey and Kuhlen have pointed out, "There are no separate groups of saints and sinners. Most people are sometimes honest, sometimes not, sometimes helpful, sometimes not—average in virtue as in other traits" (100). Most people, however, are consistent in relating their moral beliefs to their behavior. It becomes a matter of honor to live up to their standards. If they do not, they feel guilty, and if caught, they feel ashamed.

CAUSES OF DISCREPANCIES BETWEEN MORAL CONCEPTS AND MORAL BEHAVIOR

Children whose behavior falls below social standards are rarely ignorant of the wrongs they do. In fact, even among juvenile delinquents, moral knowledge is very similar to that of nondelinquents. As Eysenck has observed: "The delinquent child as well as the criminal adult is usually only too well aware of the *fact* that his conduct is contrary to moral precept: his evil-doing is not by and large due to ignorance" (31). This is true even among young children; their misbehavior is sometimes due to causes other than ignorance of what is expected of them.

Studies of discrepancies between moral knowledge and moral behavior in childhood have revealed three common causes of these discrepancies: confusion about what is expected, emotional factors, and motivational factors.

Confusion. Discrepancies between moral knowledge and moral behavior in childhood frequently result from confusion in the child's mind about the meaning of the rules he is expected to follow. Sometimes a child is confused when abstract concepts must be applied to situations that have little in common with situations he has previously met. He may, for example, know that it is wrong to steal from a person but be confused about whether taking something from a public park falls in this category.

Confusion may arise when the child sees a discrepancy between what his parents say and what they do. If it is all right for them to preach one thing and practice another, he feels that it is all right for him to do the same.

The presentation of certain kinds of behavior in the mass media, especially movies and television, may also be a source of confusion for the child. As Barclay (7) has said:

> *Television makes plain that The Law is clear and inexorable on such matters as premeditated murder, horse-stealing, bank holdups and the robbing of stagecoaches. But just what this dramatic and powerful force has to do with what they consider the mere pranks and shenanigans of youth—prying off hubcaps, altering road signs, worming into empty houses, "borrowing" automobiles —is not so easily understood. In fact, books and movies and TV shows may even confuse their understanding by presenting such actions as harmless fun or high adventure.*

Discrepancies between concepts and behavior are especially likely to occur if the moral concepts of the parents *differ from those of the child's peers.* When the child must decide between what his parents and what his friends think right, he will be influenced by what is more important to him personally. If, for example, cheating is approved by the group because it shows loyalty to a friend in distress, it is more likely to be accepted as "right" by the child because it is more advantageous to him personally to win peer than parental approval.

Frequently, confusion occurs because *moral concepts conflict with one another.* Truthfulness may conflict with loyalty to one's friends or with ideals of courtesy and sympathy. A child may knowingly tell a lie to spare the feelings of another, just as an adult may.

Emotional Factors. The discrepancy between moral knowledge and moral behavior is often due to emotional factors. In anger, for example, a child may do something he knows is wrong to "get even" with the person who has angered him.

In the latter part of childhood, when there is rebellion against adult authority, boys and girls often tend to value honesty less highly than before. Many of the acts of juvenile deliquents are motivated by the way their classmates treat them. They strike back at them or at anyone who happens to be available, and they do things they know are wrong.

Motivational Factors. Motivational factors are, in most instances, the chief cause of discrepancies between moral knowledge and moral behavior: The child frequently finds it expedient to behave in a way that he knows is not right. Disobedience at home or in school is often motivated by a desire for attention. Or the child may intentionally disobey rules and defy adult authority to prove to himself and to his peers that he is grown-up and independent.

Many children lie or blame others to avoid punishment, ridicule, or social disapproval. In games, a child may cheat because he lacks the motor skills needed to win fairly. In school, he may cheat because of parental pressure to get better grades than he is capable of getting without cheating. Or he may cheat to avoid being left behind when his friends are promoted.

EFFECTS OF DISCREPANCIES ON CHILDREN

Few children fail to recognize the discrepancy between their behavior and their moral knowledge. The child who is caught cheating, for example, may try to justify his act by claiming that everyone does it, but he still knows that it is wrong, and he feels guilty. The child who intentionally destroys the property of others may justify it because of the way they have treated him, but even when trying to justify his act, he knows that it is wrong, and if he is caught and punished he feels ashamed.

The temporary satisfaction the child gets from social approval from the peer group when he defies adult authority is usually not great enough to compensate for the feelings of guilt he experiences. He therefore tries to compensate by claiming he was ignorant of the wrong, by saying that everyone else does it, or by projecting the blame to a parent, teacher, or member of the peer group. If he can convince himself as well as others that there was no discrepancy between his moral knowledge and his behavior or that the discrepancy was not his fault, he then frees himself of feelings of guilt and shame.

Misdemeanors

A misdemeanor is mischievousness, disobedience, or willful badness of a minor sort. Most little children learn, unfortunately, that they get more attention when they are naughty than when they are good. They therefore are often *intentionally* naughty when they feel that they are being ignored. Even though they are punished, the pleasure they derive from being in the spotlight far outweighs the temporary discomfort of the punishment. Much of the destructiveness of young children, for example, is caused not by clumsiness or lack of motor control but by a willful attempt to attract attention.

That most children are aware of their misbehavior has been shown by a study in which children were asked to name the worst acts they had committed and to give their reasons for the acts. First and second graders emphasized acts which inconvenienced others, such as talking out of turn, assaulting other children in school, breaking objects, playing with fire, or disobeying parents. Third graders, by contrast, put more emphasis on acts that are morally wrong, thus indicating their awareness that they were doing things they were not supposed to do. While younger children attempted to justify their misbehavior, the older children showed feelings of guilt by referring to the inconvenience or harm their misbehavior brought to others. At no time was there an indication that their misbehavior stemmed from ignorance of what was expected (42).

COMMON CHILDHOOD MISDEMEANORS

While children do countless things that adults regard as "naughty" or "bad," certain misdemeanors are almost universal. These may vary in frequency and seriousness from child to child and in the same child from one age to another. The most common childhood misdemeanors are described in Box 15-7.

Note that, of all these misdemeanors, dishonesty in one form or another is especially common. Sometimes dishonesty is unintentional though most often it is intentional. Children who have been subjected to strict discipline in which corporal punishment was freely applied try to escape punishment by using a form of dishonesty which they have discovered, from past experience, brings them immunity. Similarly, children who have been subjected to psychological punishment, especially threats of loss of parental love, scoldings, or unfavorable comparisons with siblings, are motivated to be dishonest to escape these ego-deflating and anxiety-producing punishments. By contrast, children who are subjected to more democratic discipline in the home and school have less motivation to be dishonest.

Box 15-7

COMMON MISDEMEANORS OF CHILDHOOD

Lying

The lies of young children are not usually meant to deceive others, but are due primarily to fantasy. Some are due to exaggerations, inaccuracies, and imitation of dishonesty in others. Others are due to the child's attempt to avoid punishment or threat of punishment. Most lies of older children are due to fear of punishment, disapproval, or ridicule. Frequency of lying at different ages is shown in Figure 15-5.

Cheating

Cheating in games is common among children of all ages because of the social esteem attached to winning. Cheating in school is common when emphasis is placed on grades. Bright children may cheat to help a less able classmate, to gain greater social acceptance, and to counteract the impression that they are "goody-goody."

Stealing

While most children learn at an early age that it is wrong to take the possessions of others, they do so when they want something they feel they cannot get in other ways. Stealing is most common when children feel they will not be caught.

Destructiveness

In young children, destructiveness is usually unintentional except as retaliation. Older children are less destructive than younger ones because of fear of punishment. Destructiveness usually occurs in group situations and is an expression of hostility toward the person whose property is destroyed. Figure 15-6 shows age differences.

Truancy

Among young children, truancy usually results from school phobias—a fear of school caused not by the school but by the home situation. Among older children, truancy usually results from dislike of school, caused by poor academic work, lack of peer acceptance, lack of promotion, or discipline for misbehavior.

Dishonesty appears in the preschool years but is more pronounced in late childhood. Boys and girls learn, from their own experiences or from those of their friends, ways and means of deceiving others, especially parents and teachers. They may pretend to be ill to avoid an unpleasant task; they may hide broken objects or pretend that someone else did the damage; they may feign ignorance of a rule which they have broken; they may cheat in schoolwork or athletics; or they may steal.

Figure 15–5. Frequency of lying at different ages in childhood. (Adapted from J. Macfarlane, L. Allen, and M. P. Honzik: A developmental study of the behavior problems of normal children between twenty-one months and fourteen years. *University of California Press, 1954. Used by permission.)*

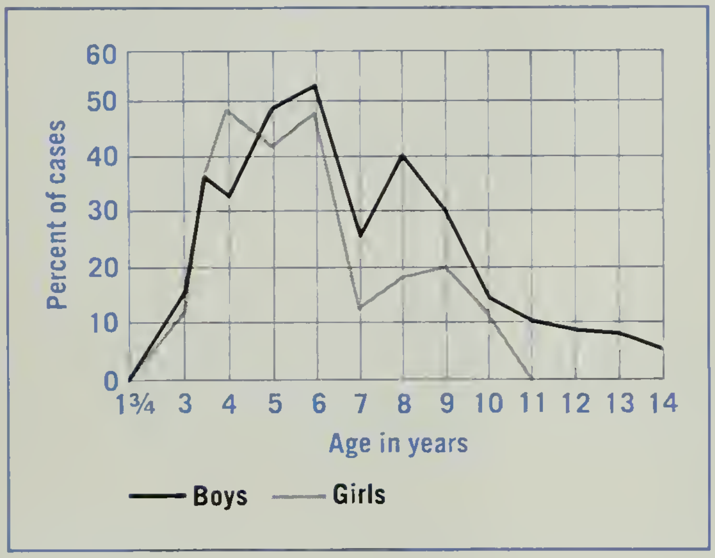
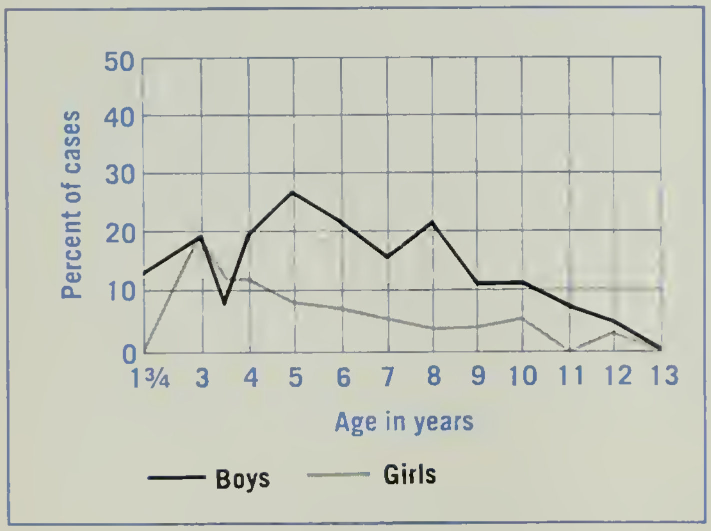


Figure 15–6. Differences in destructiveness at different ages in childhood. (Adapted from J. Macfarlane, L. Allen, and M. P. Honzik: A developmental study of the behavior problems of normal children between twenty-one months and fourteen years. *University of California Press, 1954. Used by permission.)*



VARIATIONS IN MISDEMEANORS

The frequency, seriousness, and most common kinds of misdemeanors vary markedly at different ages, among different children of the same age, and under different conditions. Of the many factors responsible for these variations, the following are the most important:

Age. Normally, misdemeanors increase throughout childhood. The peak comes shortly before adolescence, when the child is making a transition from parental to group authority. At this time there is often a relaxation of external controls over his behavior without the necessary development of internalized controls. Futhermore, this is the time when the child is striving for peer acceptance. To win the group's admiration and to prove that he is worthy of acceptance, he may feel that it is necessary to commit bold, daring, or mischievous acts. Boys, especially, place great value on independence and admire defiance of adult authority (138).

Sex. At every age, both at home and in school, boys are more disobedient, boisterous, disruptive, attention-seeking, negativistic, impertinent, and destructive than girls. The tendency to be troublesome shows a consistent sex difference from kindergarten through the sixth grade. As a result, more boys become delinquent at adolescence, and their offenses are, on the whole, more serious.

Sex differences in troublesome behavior exist because boys at every age are given more freedom to do as they please and because there is greater social tolerance for boys' misbehavior (97). Furthermore, boys feel that to win group approval, they must be willing to flaunt adult authority.

Family Size. Misdemeanors of all kinds and of greater severity are more common in large than in small families. Only children commit fewer misdemeanors both at home and in the school or neighborhood than do children with siblings. These differences have been explained in two ways. Authoritarian discipline, which encourages misdemeanors, is more characteristic of large than of small families. And in small families, children have more associations with their parents, who set a model for good behavior, while children who grow up in large families have more associations with their siblings, who often set a model of socially disruptive behavior (14, 130).

Ordinal Position. Firstborn children usually receive more guidance and control over their behavior than later-born children, but parents often *report* more problem behavior among the first born. This may be due to parents judging their behavior more by adult standards than by standards appropriate for their age. The last-born child is generally reported to have fewer behavior problems then intermediate children. He models his behavior along lines approved for older siblings and is subject to sibling disapproval when his behavior falls below their standards (14, 69, 114).

Environmental Situations. The situation in which the child finds himself affects the frequency and kind of misbehavior he engages in. It has been found, for example, that misdemeanors in the home and school are often quite different from those in other situations. Every environmental situation presents the child with certain social demands and expectations, and he is then judged by how closely he conforms to them.

The common misdemeanors in the *home* at different ages depend largely on what the child is expected to learn. If the parents expect the young child to take care of his bodily needs and personal possessions and to play with his siblings without fighting, he will be considered naughty if he fails to do so and will be punished. He is also expected to learn simple home rules. If he is unable or unwilling to learn them, his parents will interpret this as willful disobedience (18, 20, 69, 84, 105).

While *school misdemeanors* vary greatly, according to the backgrounds of the children, the kinds of teachers they have, and many other factors, there is a tendency for inattentiveness, "cutting up," vandalism, lying, and carelessness in work to decrease from the first to the sixth grades and for smoking, unexcused absences, stealing, swearing, drinking, and illicit sex acts to make their appearance. The older child intentionally violates school rules much more than the younger child (23, 69, 84, 132).

The child's behavior in school likewise varies according to the *subject matter* being studied; the less interested the child, the more troublesome he is likely to be. It has been found, for example, that children are more troublesome in mathematics classes than in social studies classes. If the child is talented in mathematics, he will be bored by the slow pace of the class and will resort to mischievous behavior. If he lacks interest and ability in mathematics, he will become bored and mischievous (64).

PSYCHOLOGICAL DAMAGE FROM MISDEMEANORS

All children misbehave at some time or other, and they should. Even those who have been subjected to such harsh and punitive discipline that they are afraid to misbehave will sooner or later seek an outlet for the fear and resentment engendered by these child-training methods. If negative emotions have been bottled up within the child and have accumulated strength, they may lead to serious crimes, not necessarily against those who have been responsible for them but often against innocent victims. The "good" child can be *too good for his own good* and for that of society. The child who is "no trouble" to his parents or teachers is hiding something behind his facade of model conduct; he may be hiding a desire for revenge which will strike when it is least expected. All one has to do is to read the newspapers to find out how often "good" or "model" children pick up a shotgun and blast away at their innocently sleeping families.

Although a certain amount of misbehavior in childhood is normal, the child can be expected to be less troublesome as he grows older. Only when the number and seriousness of the child's misdemeanors deviate either above or below the norm for his age and sex group is there reason for serious concern.

The child who is more troublesome, *both* at home and school, than is "normal" for his age is sending out a signal of potential trouble. He may improve to some extent if democratic training is substituted for authoritarian, but that alone will not be adequate. It is essential to get at the root of the trouble to find out why he misbehaves more than his age-mates.

If, on the other hand, the child is more troublesome than is normal for his age *either* in school *or* at home, it suggests that the trouble lies not with the poor adjustment of the child but with the environment in which he is more troublesome. A child whose teacher reports that he is as "good as gold" at school, for example, may be the product of authoritarian training in the home and democratic training in the school. Under such conditions, if the misdemeanors in the home are to be reduced, the home discipline should duplicate that of the school; obviously the school discipline works better than the home discipline.

Perhaps the most serious aspect of misdemeanors in childhood is that they tend to give the child feelings of satisfaction, which motivate him to repeat the behavior. Keeping the level of satisfaction constant, however, usually requires an increase in the strength of the stimulus. A child who derives satisfaction from taking a quarter from his mother's pocketbook when he is a first grader, for example, may have to steal a dollar to gain the same satisfaction when he is a fifth or sixth grader. Similarly, the child who gains satisfaction from peer approval when he flaunts adult authority will soon discover that he must flaunt it more openly and more brazenly as time passes if he is to continue to win approval. Like the alcoholic or drug addict, the child who inflates his ego by misbehaving must have stronger and stronger doses to maintain a constant level of satisfaction.

Equally serious, misdemeanors deprive the child of opportunities to learn how to gain satisfaction from socially acceptable behavior. If he can get satisfaction from being naughty, why would he want to be good, especially if he receives little attention and even less admiration from the peer group when he is good? If peer values remained constant and the peer group continued to admire the daring and naughty child, the problem would not be so serious. One of the areas of greatest change, however, relates to moral values. The child who was admired because he was naughty will later be scorned unless he modifies his behavior. If the satisfaction received from misdemeanors in childhood takes away the child's motivation to mend his ways, he will continue to try to win social approval by the tried and proved method of childhood and will increase the seriousness of his misdemeanors when he discovers that in their milder form they no longer work.

As long as misdemeanors win social approval from the peer group, the child will not develop serious and lasting feelings of guilt or shame. Even before childhood is over, however, he discovers that many of his peers disapprove of lying, cheating, stealing, truancy, willful disobedience, and other misdemeanors which they formerly envied or applauded. When this change in peer attitudes reinforces the disapproval of the adult group, the child begins to suffer the effects of shame and guilt. Gradually he builds up the belief that since his acts are considered unworthy of social approval, he, too, is unworthy. In time, this belief will develop into a generalized feeling of inadequacy and inferiority, which will warp his mental health. It will then lead to poor personal and social adjustments as well as to unhappiness and general discontent.

Highlights of Chapter 15

1. Moral behavior is behavior in conformity with the code of the social group. Immoral behavior is behavior that fails to conform to moral codes, owing to the individual's disapproval of the codes or lack of feeling of obligation to conform. Unmoral behavior is behavior that falls below moral standards, owing to the individual's ignorance of those standards.

2. Laws, customs, rules, conscience, guilt, and shame —all play important roles in moral development.

3. In the pattern of moral development, moral behavior precedes the learning of moral concepts.

4. Learning moral concepts and, in their generalized form, moral values, is hampered by confusion about what the social group expects. This slows down the learning process, causes the child to question the fairness of the concepts, and leads to difficulties in making moral decisions.

5. The purpose of all discipline is to mold the child's behavior so that he can adjust successfully to the expectations of the social group with which he is identified.

6. Discipline fills certain needs in the child's life, especially the need for security, for the avoidance of shame and guilt, for praise, and for the development of a conscience to help him to make his own decisions.

7. The four essentials of discipline are rules, consistency, punishment, and reward.

8. Punishment serves two useful purposes: It deters repetition of socially unacceptable behavior and it shows the child what the social group regards as right and wrong.

9. Rewards differ from bribes in that rewards are given in return for an act that is socially approved, while bribes are given to induce a socially approved act.

10. Disciplinary techniques fall into three major categories: authoritarian, permissive, and democratic. Of these, democratic techniques produce the best results in achieving the goals of discipline.

11. How the child reacts to the disciplinary techniques used in the home and school determines how effective they are in producing socially approved behavior.

12. Discrepancies between moral concepts and moral behavior are caused by confusion in the child's mind about what he is expected to do, by emotional factors, especially anger, and by such motivational factors as the child's desire for attention.

13. Among the common misdemeanors of childhood are lying, cheating, stealing, destructiveness, and truancy.

14. The psychological damage from misdemeanors comes from unfavorable social attitudes and from the necessity of increasing the degree of misbehavior to achieve the ego satisfaction misdemeanors give the child.

Bibliography

1. Abbe, A. E.: Maternal attitudes toward child behavior and their relationship to the diagnostic category of the child. *J. genet. Psychol.,* 1958, **92,** 167–173.
2. Allinsmith, W.: Conscience and conflict: The moral force in personality. *Child Develpm.,* 1957, **28,** 469–476.
3. Aronson, E., and D. R. Mettee: Dishonest behavior as a function of differential levels of induced self-esteem. *J. Pers. soc. Psychol.,* 1968, **9,** 121–127.
4. Ausubel, D. P.: Relationship between shame and guilt in the socializing process. *Psychol. Rev.,* 1955, **62,** 378–390.
5. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders, 1966.
6. Bandura, A.: Social learning of moral judgments. *J. Pers. soc. Psychol.,* 1969, **11,** 275–279.
7. Barclay, D.: "Law course" for the young. *The New York Times,* Apr. 16, 1961.
8. Baumrind, D.: Effects of authoritative parental control on child behavior. *Child Develpm.,* 1966, **37,** 887–907.
9. Becker, W. C., D. R. Peterson, Z. Luria, D. J. Shoemaker, and L. A. Hellmer: Relations of factors derived from parent-interview ratings to behavior problems of five-year-olds. *Child Develpm.,* 1962, **33,** 509–535.
10. Beilin, H.: Teachers' and clinicians' attitudes toward the behavior problems of children: A reappraisal. *Child Develpm.,* 1959, **30,** 9–25.
11. Bloomer, R. H.: Punishment and perception. *Elem. Sch. J.,* 1968, **69,** 100–105.
12. Bobroff, A.: The stages of maturation in socialized thinking and in the ego development of two groups of children. *Child Develpm.,* 1960, **31,** 321–330.
13. Boehm, L.: The development of conscience of preschool children: A cultural and subcultural comparison. *J. soc. Psychol.,* 1963, **59,** 355–360.
14. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row, 1966.
15. Bramel, D.: Selection of a target for defensive projection. *J. abnorm. soc. Psychol.,* 1963, **66,** 318–324.
16. Britton, J. H., J. O. Britton, and C. F. Fisher: Perceptions of children's moral and emotional behavior: A comparison of Finnish and American children. *Hum. Develpm.,* 1969, **12,** 55–63.
17. Burke, P. J.: Scapegoating: An alternative to role differentiation. *Sociometry,* 1969, **32,** 159–168.
18. Burton, R. V., W. Allinsmith, and E. E. Maccoby: Resistance to temptation in relation to sex of child, sex of experimenter and withdrawal of attention. *J. Pers. soc. Psychol.,* 1966, **3,** 253–258.
19. Busse, T. V.: Child-rearing antecedents of flexible thinking. *Develpm. Psychol.,* 1969, **1,** 584–591.
20. Clifford, E.: Discipline in the home: A controlled observational study of parental practices. *J. genet. Psychol.,* 1959, **95,** 45–82.
21. Cowan, P. A., J. Langer, J. Heavenrich, and M. Nathanson: Social learning and Paiget's cognitive theory of moral development. *J. Pers. soc. Psychol.,* 1969, **11,** 261–274.
22. Crane, A. R.: The development of moral values in children. IV. Preadolescent gangs and the moral development of children. *Brit. J. educ. Psychol.,* 1958, **28,** 201–208.
23. Cummins, E. J.: Are disciplinary students different? *Personnel Guid. J.,* 1966, **44,** 624–627.
24. Davitz, J. R.: Contributions of research with children to a theory of maladjustment. *Child Develpm.,* 1958, **29,** 3–7.
25. Deur, J. L., and R. D. Parke: Effects of inconsistent punishment on aggression in children. *Develpm. Psychol.,* 1970, **2,** 403–411.
26. Devereaux, E. C., U. Bronfenbrenner, and R. R. Rodgers: Child rearing in England and the United States: A cross-national comparison. *J. Marriage & Family,* 1969, **31,** 257–270.
27. Dubin, E. R., and R. Dubin: The authority inception period in socialization. *Child Develpm.,* 1963, **34,** 885–898.
28. DuBois, F. S.: The security of discipline. *Ment. Hyg., N. Y.,* 1952, **36,** 353–372.
29. Durkin, D.: Children's concepts of justice: A comparison with the Piaget data. *Child Develpm.,* 1959, **30,** 59–67.
30. Eron, L. D., L. O. Walder, R. Toigo, and M. M. Lefkowitz: Social class, parental punishment for aggression, and child aggression. *Child Develpm.,* 1963, **34,** 849–867.

31. Eysenck, H. J.: The development of moral values in children. VII. The contribution of learning theory. *Brit. J. educ. Psychol.,* 1960, **30**, 11–21.
32. Frank, L. K.: The concept of maturity. *Child Develpm.,* 1950, **21**, 21–24.
33. Gabriel, J.: Children's moral development. *Aust. Psychologist,* 1966, **1**, 86.
34. Gagné, R. M., and V. K. Wiegand: Some factors in children's learning and retention of concrete rules. *J. educ. Psychol.,* 1968, **59**, 355–361.
35. Geisel, G. B.: Discipline viewed as a developmental need of the child. *Nerv. Child,* 1951, **9**, 115–121.
36. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.
37. Glassco, J. A., N. A. Milgram, and J. Youniss: Stability of training effects on intentionality in moral judgment in children. *J. Pers. soc. Psychol.,* 1970, **14**, 360–365.
38. Glueck, E.: Identification of potential delinquents at ages 2–3 years. *Int. J. soc. Psychiat.,* 1966, **12**, 5–16.
39. Greenfield, N. S.: The relationship between recalled forms of childhood discipline and psychopathology. *J. consult. Psychol.,* 1959, **23**, 139–142.
40. Grim, P. F., L. Kohlberg, and S. H. White: Some relationships between conscience and attentional processes. *J. Pers. soc. Psychol.,* 1968, **8**, 239–252.
41. Grinder, R. E.: Parental child rearing practices, conscience, and resistance to temptation of sixth-grade children. *Child Develpm.,* 1962, **33**, 803–820.
42. Gump, P.V., and J.S. Kounin: Milieu influences in children's concepts of misconduct. *Child Develpm.,* 1961, **32**, 711–720.
43. Haaf, R. A., J. F. Felstein, and S. L. Witryol: A developmental study of children's incentive-object preferences. *Develpm. Psychol.,* 1970, **3**, 275.
44. Hammer, M.: The relationship between recalled type of discipline in childhood and adult interpersonal behavior. *Merrill-Palmer Quart.,* 1964, **10**, 143–145.
45. Harris, H.: Development of moral attitudes in white and Negro boys. *Develpm. Psychol.,* 1970, **2**, 376–383.
46. Havighurst, R. J.: How the moral life is formed. *Relig. Educ.,* 1962, **57**, 432–439.
47. Hemming, J.: The development of children's moral values. *Brit. J. educ. Psychol.,* 1957, **27**, 77–88.
48. Henry, A. F.: Sibling structure and perception of disciplinary roles of parents. *Sociometry,* 1957, **20**, 67–74.
49. Henry, J.: Permissiveness and morality. *Ment. Hyg., N.Y.,* 1961, **45**, 282–287.
50. Hill, J. P., and R. A. Kochendorfer: Knowledge of peer success and risk of detection as determinants of cheating. *Develpm. Psychol.,* 1969, **1**, 231–238.
51. Hilliard, F. H.: The influence of religious education upon the development of children's moral ideas. *Brit. J. educ. Psychol.,* 1959, **29**, 50–59.
52. Hoffman, M. L.: Moral development. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 261–359.
53. Hymes, J. L.: *Behavior and misbehavior: A teacher's guide to action.* Englewood Cliffs, N.J.: Prentice-Hall, 1957.
54. Jenkins, R. L.: Classification of behavior problems in children, *Amer. J. Psychiat.,* 1969, **125**, 1032–1039.
55. Jersild, A.T.: *Child psychology,* 6th ed. Englewood Cliffs, N.J.: Prentice-Hall, 1968.
56. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36**, 899–911.
57. Jones, V.: Character development in children: An objective approach. In L. Carmichael (ed.): *Manual of child psychology,* rev. ed. New York: Wiley, 1954, pp. 781–832.
58. Kanfer, F. H., and P. H. Duerfeldt: Age, class standing, and commitment as determinants of cheating in children. *Child Develpm.,* 1968, **39**, 545–557.
59. Karr, C., and F. Wesley: Comparison of German and U.S. childrearing practice. *Child Develpm.,* 1966, **37**, 715–723.
60. King, G. F., and M. Schiller: Ego strength and types of defensive behavior. *J. consult. Psychol.,* 1960, **24**, 215–217.
61. Klemesrud, J.: A new idea in discipline: Spanking. *The New York Times,* Oct. 26, 1970.
62. Knowlton, J. Q., and L. A. Hamerlynck: Perception of deviant behavior: A study of cheating. *J. educ. Psychol.,* 1967, **58**, 379–385.
63. Kohlberg, L.: Moral development and identification. 62nd *Yearb. Nat. Stud. Educ.,* 1963, part 1, 277–332.
64. Kowatrakul, S.: Some behaviors of elementary school children related to classroom activities and subject areas. *J. educ. Psychol.,* 1959, **50**, 121–128.
65. Kurokawa, M.: Acculturation and mental health of Mennonite children. *Child Develpm.,* 1969, **40**, 689–705.
66. Lambert, W. W., L. M. Triandis, and M. Wolf: Some correlates of beliefs in the malevolence and benevolence of supernatural beings: A cross-societal study. *J. abnorm. soc. Psychol.,* 1959, **58**, 162–169.
67. Landreth, C.: *Early childhood: Behavior and learning,* rev. ed. New York: Knopf, 1967.
68. Lang, S., and J. G. Adair: Preference for delayed reward as a function of age and personality. *Psychol. Rep.,* 1968, **22**, 805–808.
69. LaPouse, R.: The epidemiology of behavior disorders in children. *Amer. J. Dis. Children,* 1966, **111**, 594–599.
70. Leff, R. M.: Effects of punishment intensity and consistency on the internalization of behavior suppression in children. *Develpm. Psychol.,* 1969, **1**, 345–356.
71. Lefkowitz, M. M., and J. Cannon: Physique and obstreperous behavior. *J. clin. Psychol.,* 1966, **22**, 172–174.
72. Lefkowitz, M. M., L. O. Walder, and L. D. Eron: Punishment, identification and aggression. *Merrill-Palmer Quart.,* 1963, **9**, 159–174.
73. LeShan, E. J.: The "perfect" child. *The New York Times,* Aug. 27, 1967.
74. Lipsitz, L.: Working-class

authoritarianism: A re-evaluation. *Amer. sociol. Rev.,* 1965, **30**, 103–109.

75. Lorber, N. M.: Inadequate social acceptance and disruptive classroom behavior. *J. educ. Res.,* 1966, **59**, 360–362.
76. Madoff, J. M.: The attitudes of mothers of juvenile delinquents toward child rearing. *J. consult. Psychol.,* 1959, **23**, 518–520.
77. Marshall, H. H.: The effect of punishment on children: A review of the literature and a suggested hypothesis. *J. genet. Psychol.,* 1965, **106**, 23–33.
78. Marwell, G., and D. R. Schmitt: Child-rearing experience and attitudes toward the use of influence techniques. *J. Marriage & Family,* 1969, **31**, 779–782.
79. McGuire, C., and G. D. White: Social-class influences on discipline at school. *Educ. Leadership.* 1957, **14**, 29–31, 234–236.
80. Medinnus, G. R.: Objective responsibility in children: A comparison with the Piaget data. *J. genet. Psychol.,* 1962, **101**, 127–133.
81. Meeks, J. E.: Children who cheat at games. *J. Amer. Acad. child Psychiat.,* 1970, **9**, 157–190.
82. Middleton, R., and S. Putney: Religion, normative standards and behavior. *Sociometry,* 1962, **25**, 141–152.
83. Mills, J.: Changes in moral attitudes following temptation. *J. Pers.,* 1958, **26**, 517–531.
84. Mitchell, S., and M. Shepherd: A comparative study of children's behavior at home and at school. *Brit. J. educ. Psychol.,* 1966, **36**, 248–254.
85. Moore, S. G., and F. Olson: The effects of explicitness of instructions on the generalization of a prohibition in young children. *Child Develpm.,* 1969, **40**, 945–949.
86. Mussen, P. H., J. J. Conger, and J. Kagan: *Child development and personality,* 3d ed. New York: Harper & Row, 1969.
87. Mussen, P. H., E. Rutherford, S. Harris, and C. B. Keasey: Honesty and altruism among preadolescents. *Develpm. Psychol.,* 1970, **2**, 169–194.
88. Nakamura, C. Y.: The relationship between children's expressions of hostility and methods of discipline exercised by dominant, overprotective parents. *Child Develpm.,* 1959, **30**, 109–117.
89. Nelson, E. A., R. E. Grinder, and M. L. Mutterer: Sources of variance in behavioral measures of honesty in temptation situations: Methodological analyses. *Develpm. Psychol.,* 1969, **1**, 265–279.
90. O'Leary, K. D.: The effects of self-instruction on unmoral behavior. *J. exp. Child Psychol.,* 1968, **6**, 297–301.
91. Ostfeld, B., and P. A. Katz: The effect of threat severity in children of varying socioeconomic levels. *Develpm. Psychol.,* 1969, **1**, 205–210.
92. Parke, R. D.: Effectiveness of punishment as an interaction of intensity, timing, agent nurturance, and cognitive structuring. *Child Develpm.,* 1969, **40**, 213–235.
93. Pattison, E. M.: The development of moral values in children. *Pastoral Psychol.,* 1969, **20**, 14–30.
94. Pavenstedt, E.: A comparison of the child-rearing environment of upper-lower and very low-lower class families. *Amer. J. Orthopsychiat.,* 1965, **35**, 89–98.
95. Pearlin, L. I., M. R. Yarrow, and H. A. Scarr: Unintended effects of parental aspirations: The case of children's cheating. *Amer. J. Sociol.,* 1967, **73**, 73–83.
96. Peck, R. F., and R. J. Havighurst: *The psychology of character development.* New York: Wiley, 1962.
97. Peterson, D. R.: Behavior problems of middle childhood. *J. consult. Psychol.,* 1961, **25**, 205–209.
98. Phillips, B. N.: Problem behavior in the elementary school. *Child Develpm.,* 1968, **39**, 895–903.
99. Pietrofesa, J. J.: A sociological view of discipline. *Catholic Sch. J.,* 1969, **69**, 34–35.
100. Pressey, S. L., and R. G. Kuhlen: *Psychological development through the life span.* New York: Harper & Row, 1957.
101. Putney, S., and R. Middleton: Effect of husband-wife interaction on the strictness of attitudes toward child rearing. *Marriage fam. Living,* 1960, **22**, 171–173.
102. Quay, H. C.: Personality patterns of preadolescent delinquent boys. *Educ. psychol. Measmt.,* 1966, **26**, 99–110.
103. Rosenthal, M. J.: The syndrome of the inconsistent mother. *Amer. J. Orthopsychiat.,* 1962, **32**, 637–644.
104. Russell, D. H.: *Children's thinking.* Boston: Ginn. 1956.
105. Ryle, A., D. A. Pond, and M. Hamilton: The prevalence and patterns of psychological disturbance in children of primary age. *J. child. Psychol. Psychiat.,* 1965, **6**, 101–113.
106. Saadatmand, B., L. Jensen, and A. Price: Nurturance, nurturance withdrawal, and resistance to temptation among three age groups. *Develpm. Psychol.,* 1970, **2**, 450.
107. Scarpitti, F. R., E. Murray, S. Dinitz, and W. C. Reckless: The "good" boy in a high delinquency area: Four years later. *Amer. sociol. Rev.,* 1960, **25**, 555–558.
108. Schaefer, E. S.: Children's reports of parental behavior: An inquiry. *Child Develpm.,* 1965, **36**, 413–424.
109. Schneiders, A. A.: The nature and orgins of guilt. *Trans. N.Y. Acad. Sci.,* 1968, **30**, 705–713.
110. Sears, R. R., E. E. Maccoby, and H. Levin: *Patterns of child rearing.* New York: Harper & Row, 1957.
111. Settlage, C. F.: The values of limits in child rearing. *Children,* 1958, **5**, 175–178.
112. Shaw, M. C.: A note on parent attitudes toward independence training and the academic achievement of their children. *J. educ. Psychol.,* 1964, **55**, 371–374.
113. Shelton, J., and J. P. Hill: Effects on cheating of achievement anxiety and knowledge of peer performance. *Develpm. Psychol.,* 1969, **1**, 449–455.
114. Shrader, W. K., and T. Leventhal: Birth order of children and parental report of problems. *Child Develpm.,* 1968, **39**, 1165–1175.
115. Shure, M. B.: Fairness, generosity, and selfishness: The naive

psychology of children and young adults. *Child Develpm.,* 1968, **39,** 875–886.

116. Silbey, S. A., M. S. Abbott, and B. P. Cooper: Modification of the classroom behavior of a disadvantaged boy by social reinforcement and isolation. *J. exp. Child Psychol.,* 1969, **7,** 203–219.

117. Sollenberger, R. T.: Chinese-American child-rearing practices and juvenile delinquency. *J. soc. Psychol.,* 1968, **74,** 13–23.

118. Spear, P. S.: Motivational effects of praise and criticism on children's learning. *Develpm. Psychol.,* 1970, **3,** 124–132.

119. Spock, B.: *Infant and child care,* rev. ed. New York: Pocket, 1970.

120. Steininger, M: Attitudes toward cheating: General and specific. *Psychol. Rep.,* 1968, **22,** 1101–1107.

121. Stephenson, G. M., and J. H. White: An experimental study of some effects of injustice on children's moral behavior. *J. exp. soc. Psychol.,* 1968, **4,** 460–469.

122. Stone, F. B., and V. N. Rowley: Children's behavior problems and parental attitudes. *J. genet. Psychol.,* 1965, **107,** 281–287.

123. Stouwie, R. J., E. M. Hetherington, and R. D. Parke: Some determinants of children's self-reward behavior after exposure to discrepant reward criteria. *Develpm. Psychol.,* 1970, **3,** 313–319.

124. Strang, R. M.: Children's moral concepts: A tentative taxonomy. *Education,* 1964, **85,** 67–77.

125. Sutton-Smith, B., and B. G. Rosenberg: Peer perceptions of impulsive behavior. *Merrill-Palmer Quart.,* 1961, **7,** 233–238.

126. Sybouts, W.: School discipline and home background. *Personnel Guid. J.,* 1967, **45,** 683–686.

127. Toigo, R.: Social status and schoolroom aggression in third-grade children. *Genet. Psychol. Monogr.,* 1965, **71,** 221–268.

128. Tolor, A., W. L. Scarpetti, and P. A. Lane: Teachers' attitudes toward children's behavior revisited. *J. educ. Psychol.,* 1967, **58,** 175–180.

129. Torgoff, I., and G. Tesi: Effect of differences in achievement motivation and social responsibility on responses to moral conflict. *J. Pers.,* 1968, **36,** 513–527.

130. Tuckman, J., and R. A. Regan: Size of family and behavioral problems in children. *J. genet. Psychol.,* 1967, **111,** 151–160.

131. Vincent, E. L., and P. C. Martin: *Human psychological development.* New York: Ronald, 1961.

132. Walker, H. M.: Empirical assessment of deviant behavior in children. *Psychol. in the Schools,* 1969, **6,** 93–97.

133. Ward, W. D., and A. F. Furchak: Resistance to temptation among boys and girls. *Psychol. Rep.,* 1968, **23,** 511–514.

134. Waters, E., and V. J. Crandall: Social class and observed maternal behavior from 1940 to 1960. *Child Develpm.,* 1964, **35,** 1021–1032.

135. Watson, G.: Some personality differences in children related to strict or permissive parental discipline. *J. Psychol.,* 1957, **44,** 227–249.

136. Weinstock, A. R.: Longitudinal study of social class and defense preferences. *J. consult. Psychol.,* 1967, **31,** 539–541.

137. Wiggam, E. A.: Do brains and character go together? *Sch. Soc.,* 1941, **54,** 261–265.

138. Witryol, S. L., and J. E. Calkins: Marginal social values of rural school children. *J. genet. Psychol.,* 1958, **92,** 81–93.

139. Witryol, S. L., L. M. Lowden, J. F. Fagan, and T. C. Bergen: Verbal versus material rewards as a function of schedule and set in children's discrimination preference choice behavior. *J. genet. Psychol.,* 1968, **113,** 3–25.

140. Witryol, S. L., D. J. Tyrrell, and L. M. Lowden: Development of incentive values in children. *Genet. Psychol. Monogr.,* 1965, **72,** 201–246.

141. Wolff, S.: Symptomatology and outcome of pre-school children with behavior disorders attending a child guidance clinic. *J. child Psychol. Psychiat.,* 1961, **2,** 269–276.

142. Woodruff, A. D.: *Basic concepts of teaching.* San Francisco: Chandler, 1961.

143. Woods, P. J., K. B. Glavin, and C. M. Kettle: A mother-daughter comparison on selected aspects of child rearing in a high socioeconomic group. *Child Develpm.,* 1960, **31,** 121–128.

EVE ARNOLD—MAGNUM

CHAPTER SIXTEEN Some Childhood Interests

IN CHILDHOOD, INTERESTS PROVIDE a strong motivation to learn. A child who is interested in an activity, whether it is play or work, will put forth more effort to learn than the child who is less interested or bored. If learning experiences are to tap the child's full resources, they must be timed to coincide with his interests. This is the "teachable moment"—the time when the child is ready to learn because he is interested in what learning will bring him in the way of personal advantage.

Furthermore, interests add enjoyment to life. If the child is interested in a required activity, the experience will be more enjoyable than if he is not. If he lacks interest, his achievements will fall far short of his capacities. One of the reasons for underachievement among bright children, for example, is that they have too little interest in a subject to work up to their capacities.

Interests versus Whims

An *interest* is a learned motive which drives the person to occupy himself with an activity when he is free to choose what he will do. As Shane has explained, an interest is "something with which the child identifies his personal well-being" (112). When a child sees that something will benefit him, he becomes interested in it; this motivates learning. As long as the activity is satisfying, interest remains high. When satisfaction wanes, so does interest.

A *whim* is a temporary interest. While it lasts, it may be highly motivating, but it gives only temporary satisfaction. True interests are more persistent because they satisfy a need in the individual's life.

Many adults fail to recognize that what appears to be an interest may, in reality, be only a whim. They make the mistake of expecting a child to continue a task or activity which no longer brings him satisfaction. A child may want to learn to play the piano because an older sibling or a playmate is taking music lessons. Parents make arrangements for lessons, buy a piano, and then force the child to practice. If playing the piano gives the child little satisfaction, his interest will disappear, and he will rebel against the lessons and the practice.

Since every interest satisfies some need in the child's life, even though the need may not be readily apparent to an adult, the stronger the need, the stronger and more lasting the interest.

The more frequently the child expresses his interest in an activity, the stronger it will become. On the other hand, interests are subject to extinction through disuse. Should the child's environment limit his opportunities to play with other children, for example, his interest in playmates will wane, and a substitute interest will take its place. If he can find a thoroughly satisfying substitute, a time will come when he will have little interest in people; he may even claim that people "bore him."

An activity that fails to satisfy, stimulate, or challenge the individual is boring. Such an activity is the opposite of an interest. When children are bored, they are likely to get into mischief and cause trouble for others in the hope of stirring up some excitement, and thus turning a boring situation into an interesting one. For the most part, children experience *boredom* when they are forced to do things that do not fit their needs or give them satisfaction. Boredom is especially likely to occur in school, where the curriculum and method of teaching must be planned for the group rather than for the individual.

Methods of Discovering Children's Interests

To a large extent, interests determine what the child will do and how well he will do it. How is it possible to know what a child's interests are, and how can one distinguish between interests and whims? Some of the ways of discovering interests are shown in Box 16-1.

While one method alone might be sufficient to determine whether the child is really interested in a specific activity or subject, it is safer to use several methods so that one can act as a check on the others. Unless this is done, what appears at first to be an interest may turn out to be a whim. By observing a child, for example, one might conclude that he had a strong interest in painting because of the enthusiastic way in which he goes about his painting. Unless it is possible to observe him over a long enough period to determine whether his enthusiasm persists, one should supplement observation with other methods—what the child talks about or what he wishes he could do.

Using several methods to substantiate an original assessment of a child's interests is also justified by the fact that a child may engage in an activity merely because he has nothing else to do. Many activities that occupy a child's free time, such as listening to the radio or watching television, may not represent a strong interest but rather lack of something more interesting to spend his time on.

How Interests Develop

The child is not born with ready-made interests. Instead, interests are an outgrowth of learning experiences. The kind of learning from which an interest develops will determine how satisfying and how persistent the interest is likely to be. Most commonly, interests grow out of three kinds of learning experiences.

First, in trial-and-error learning, the child by chance discovers that something interests him. Interests acquired in this way may be long-lasting or may turn out to be whims which quickly pass. When combined with guidance, trial-and-error learning is a valuable means of developing new interests because the child has an opportunity to try out what appeals to him to see whether or not it actually meets some need in his life.

Second, in learning through identification with a person he admires or loves, a child takes on the other's interests as well as his patterns of behavior. If a boy's father is interested in shopwork as a hobby, for example, the son will be likely to develop an interest in shopwork also so that he can participate in the activity with his father.

Two important points about this method of learning interests should be noted. In the first place, if the child does not have the skill or ability to sustain such interests, they will give him little satisfaction and will soon subside. Second, and equally important, the sources of identification shift as he grows older, and when this happens, he tries to model himself after the new person with whom he identifies. This means a shift in interests which may interfere with the development of an old interest.

Third, interests may be developed through guidance and direction by a person qualified to assess the child's abilities. Since this method of learning takes account of the child's abilities, it is much more likely to develop interests that will satisfy the child's needs than either trial and error or identification.

The person responsible for the guidance is more experienced than the child, and so he can emphasize interests that are both culturally approved and useful to the child's social and personal adjustments. In guiding the child's interest in clothes, for example, the person can help the child develop clothing interests that will conform to the styles of the cultural group and at the same time improve his looks. This, in turn, will give the child ego satisfaction and increase his chances of social acceptance.

Characteristics of Children's Interests

To understand children's interests, one should know how, why, and when interests develop and how children's interests differ from those of adults. The most important characteristics of children's interests are discussed in the following sections.

Interests Parallel Physical and Mental Development. Along with physical and mental changes come changes in interests. This is well illustrated in the development

Box 16-1

DISCOVERING CHILDREN'S INTERESTS

- *Observation of activities.* By observing what objects children play with, buy, collect, or use when there is an element of spontaneity in the activity, one can get a clue to their interests.
- *Questions.* When children ask questions persistently and frequently about something, they are more interested in that subject than in one they ask questions about only occasionally.
- *Topics of conversation.* What children talk about either with adults or with contemporaries gives a clue to what they are interested in and how strong the interest is.
- *Reading.* When free to select books to read or to have read to them, children select those which deal with topics that interest them.
- *Spontaneous drawing.* What children draw or paint spontaneously and how often they return to it will give a clue to their interest in a subject.
- *Wishes.* When asked what they would like to have if they could have anything they wanted, most children state very frankly wishes for things that interest them most.
- *Reports of what is of interest.* When asked to tell or to write down three or more things that interest them most, children indicate already-formed interests, which give a clue to where their satisfactions come from.

of play interests. While the child is very young, his limited physical and mental development restricts his interest to games with few rules and regulations. Gradually he outgrows these simple play activities and wants to take part in games and sports which involve highly skilled movements of the body and have rules and regulations to govern these movements. Interests in all areas continue to change as long as physical and mental changes are taking place. When growth slows down and a mature level of development is reached, interests normally become more stable. At puberty the child develops interests that are closely related to his mature body and mind. See Chapter 6 for a more complete discussion of changed interests at puberty.

The child who is developing more rapidly or more slowly than the average will be out of step with his age-mates. This is why a very bright child has little in common with children in his age group whose intelligence ranges around the norm. It is also one of the reasons why the late-maturing child encounters certain social problems; his interests are still those of a child, while the interests of his age-mates are those of an adolescent.

Interests Depend upon Readiness to Learn. A child cannot acquire interests before he is physically and mentally ready to do so. He cannot, for example, have a *real* interest in ball games until he has the strength and muscle coordination necessary for ball play. One of the major problems in religious or sex instruction is that of satisfying the child's curiosity about these matters with material that is not too abstract to be understood. Explanations must often be so oversimplified that the child builds up concepts which must later be radically revised.

Interests Depend upon Opportunities to Learn. Even if the child is ready to learn, he cannot develop interests unless he has an opportunity to do so. Opportunities to learn depend upon the environment and the interests of the people—both children and adults—with whom the child is associated.

The young child's environment is limited largely to the home; consequently, his interests are "homegrown." The school, the neighborhood, and the community offer opportunities for the acquisition of new interests as the child grows older. At school, he is introduced to interests which were unknown to him before, interests such as history, geography, and foreign languages. From contacts with members of the peer group, he acquires interests in play that would have been impossible for him to develop in the home.

Development of Interests May Be Limited. Physical and mental incapacities and restricted social experiences will limit the child's interests. A physically handicapped child cannot acquire the same interest in sports as a child whose development is normal. In the same way, mental handicaps limit a child's interest in academic studies. The environment in which the child lives may cut him off from interests that would be very satisfying to him. Children who are discriminated against because of race or religion may be forced to develop interests in play activities where companionship is unessential.

When a person fails to acquire certain interests in childhood, he may be penalized throughout life. Many adults report that they regret not acquiring more interests in childhood (126). While interests can be acquired at any age, the child has more time and more opportunity to learn new interests than the adult. This is well illustrated in the area of recreational interests. In the home, the school, and the neighborhood, the child is provided with time, equipment, space, and guidance in learning different play interests; the adult must provide these for himself. On the other hand, interests sometimes develop as a result of frustration and are closely related to the child's level of aspiration. It is not unusual for a child to develop an interest in something beyond his reach. For example, a boy with a small, puny body may develop a strong interest in sports. By identifying with players, he derives, vicariously, the enjoyment that other boys derive from the activity itself.

Interests Are Affected by Cultural Influences. Cultural influences in the environment play an important role in the development of interests by controlling learning opportunities. From parents, teachers, and other adults, the child is given opportunities to learn what the cultural group considers appropriate interests and is deprived of opportunities to develop interests which the group considers inappropriate.

A comparison of the amount of interest English and American students showed in different school subjects revealed that the two groups were similar in many respects. English boys, however, showed a greater interest in drawing than American boys. The difference was explained by the fact that drawing is considered more sex appropriate for boys in England than in America. American boys showed a greater interest in arithmetic than English boys because of the high value Americans place on this "practical" subject as the basis for later success in business (128).

Interests Are Emotionally Weighted. In the development of interests, interpersonal relationships are more important than specific teaching. The child who dislikes his teacher, for example, may learn to dislike not only the subject she teaches but school in general. By contrast, liking the teacher may result in an interest in a school subject that is strong enough to become a generalized interest in school itself.

Since interests are closely related to likes and dislikes, and a child may be conditioned by unfavorable experiences early in life to dislike an activity or situation, he may be cut off from later opportunities to develop interests in similar situations or activities. A boy who feels that helping with work in the home is not masculine will be conditioned to dislike all housework. As a result, he will show little or no interest in the home and how it is run. This will cut him off from many activities that might be enjoyable to him or contribute to the happiness of his family life.

Interests Are Egocentric. Children's interests are especially egocentric during the early years of life. Gradually, as contacts with the peer group increase, the child's desire to become an accepted member of the group will influence his interests. Even then, however, there is a strong egocentric frame of reference to his interests. The child may develop an interest in religion, for example, because his friends have such an interest, but his interest will center more on what religion can do for him than on religion per se. In the same way, his interest in mathematics is in how mathematics can help him get better marks in school and how he can use it now as well as in his future vocation. It should be noted that adults' interests, too, are largely egocentric.

The following discussion of some of the almost universal interests of present-day American children shows how environmental influences and peer pressures affect children's interests even when the egocentric aspect dominates.

Interest in the Human Body

Even before the baby is able to sit up, he looks at and investigates his own body. This is one of the earliest forms of exploratory behavior. Later, when the young child discovers a mirror, he enjoys seeing what his face looks like when he "makes faces" at himself, and he laughs with glee at his image.

By the time the child is 3½ years old, he is interested in how his body functions and what the different parts are used for. He makes comments and asks questions; he examines his navel, eyes, hair, breast, and anus. He looks at himself in the mirror and calls the attention of other children to different parts of their bodies.

The child is also interested in body products, such as saliva, sweat, and blood. So long as they are normal, everyday experiences, his interest is unemotional. The behavior of a child during elimination, for example, is just as matter of fact as when brushing the hair. If a body product is unusual, however, as in the flow of blood from a cut finger, the child's reaction is emotionally colored and his interest heightened. Even if there is no pain, he wants to know where the blood comes from, how and why it clots, and what causes the cut to heal (60).

The young child's interest in body differences between boys and girls is also devoid of emotional tone. Most young children react to genital differences with tranquil, unperturbed acceptance.

Before they attain school age, however, their interest in sex differences begins to grow, and in the latter part of childhood it reaches a peak. The growth of the genitals and the development of the secondary sex characteristics with the onset of puberty focus attention on sex differences and heighten interest in them.

AGE DIFFERENCES IN BODY INTERESTS

At first the child's interest is centered mainly on the exterior of his body. The young child explores the different parts of his body thoroughly to see what sensations they produce. The older child becomes interested in the interior of his body. He wants to know what the names of the different parts are, what they do, and what they look like. The older child is also interested in what germs are, how they cause the body to become "sick," and how medicine can cure the sickness. When a person dies, the older child is curious about what happens to the body after it has been put into a grave and how it can then get to heaven.

Interest in the body motivates the child to try to gain more information about it. What technique he will use to gain information will depend to a large extent upon his age. The young child limits his search for information mainly to exploring his own body or the bodies of his playmates and to asking questions. The older child uses these same techniques, and he also looks at pictures of the different organs and gives rapt attention when adults discuss physical ailments or death.

INTEREST IN HEALTH

Interest in the body does not, as a rule, include interest in health unless the child is in such poor health that it prevents him from doing what other children do. If a child is handicapped by a chronic illness, such as asthma or diabetes, he often becomes so health-conscious that he thinks and talks about it too much. The well-adjusted child is not health-conscious; the poorly adjusted child, by contrast, not only is preoccupied with his ailments but frequently uses them to explain academic or social inadequacies or to avoid doing things he does not want to do.

By the time the child reaches adolescence, he appreciates the relationship between health, appearance, and the activities he wants to engage in. As a result, his interest in health often becomes an obsession. This is true of well-adjusted adolescents, not only of adolescents who are poorly adjusted, as in the earlier years.

Interest in Appearance

Throughout the childhood years, interest in appearance is relatively slight. So long as the child is not so different from his age-mates that he is conspicuous, his appearance is of little concern to him. Missing teeth, for example, do not bother the 6-year-old, because his age-mates also have missing teeth. Even parental pressures to stand up straight or to be neat are not enough to arouse the child's interest in his appearance. In fact, the more parental concern the child is subjected to, the stronger his resistance.

INTEREST IN SEX APPROPRIATENESS OF APPEARANCE

Children—especially boys—are more interested in the sex appropriateness of their appearance than in appearance per se. As interest in play activities with members of their own sex increases during the gang age of late childhood, so does interest in the sex appropriateness of appearance.

The child can satisfy his desire for a sex-appropriate appearance by two techniques unrelated to his body: the clothes he wears and how he wears them. A boy discovers that he can create the impression of being masculine by wearing typically masculine clothes and by being slovenly and unkempt. Girls try to look feminine by wearing clothes that are distinctly different from boys' clothes and by being neat and well groomed.

INFLUENCE OF SOCIAL PRESSURES ON INTEREST IN APPEARANCE

Few interests of childhood are more influenced by social pressure than interest in appearance. And, for the most part, it is the peer group that counts. The peer group is responsible for the child's interest in a sex-appropriate appearance and in clothes to help to achieve this goal.

Peer-group pressures are reinforced by social acceptance or rejection. The older girl learns that she must make a good appearance if she wants to be popular, while the older boy discovers that a neat appearance is likely to lead to the label of "sissy." Were it not for social pressures from peers, the child's interest in his appearance would be one of his weakest interests.

Interest in Clothes

Interest in clothes develops because clothes satisfy some important needs in the child's life. The more needs that clothes can satisfy, the stronger the interest in them. Box 16–2 lists seven needs satisfied by clothes.

As the child grows older, his needs change. When this happens, his interests also change. This is well illustrated in the child's need for attention. When a very young baby has all his physical needs met, he is satisfied. However, even before he is a year old, this is not enough. He wants attention and he wants to be independent. These needs, he discovers, can be partially satisfied by clothes. How they satisfy his needs will depend on his age. A preschool child will expect attention when he has new clothes, and if he does not receive it, he will say, "See my new shoes?" or "I am wearing a new sweater." As a school child, he will be satisfied with the attention his clothes bring only when others consider them becoming, stylish, or sex appropriate.

The child's interest in clothes will be great if they satisfy needs that are important to the child *at the time.* When his need for independence is strong, being permitted to select the clothes he wants to wear will increase his interest in clothes. Similarly, the child who is dissatisfied with his looks because his body build does not conform to that of his peers will have a strong interest in clothes if he discovers that he can cover up his fatness or thinness so that he is no longer called "Fatso" or "Bean pole."

AREAS OF INTEREST IN CLOTHES

Children's interest in clothes is different from that of adolescents and adults and, as a result, different aspects of their clothing are important. While style means a great deal to an adolescent or adult, it is of little concern to a child. On the other hand, ornamentation is of prime importance.

Newness. Just as the child likes new toys, so he likes new clothes. Novelty excites his curiosity and encourages him to explore. In addition newness has great attention value. The preschooler wants attention because he enjoys being in the limelight, especially when he is with adults. The older child is interested in new clothes because they make him look older or like his friends.

One of the reasons the child rebels against hand-me-down clothes from older siblings is that they are "old clothes." Even the temporary pleasure of feeling that wearing clothes associated with an older sibling will make people think that he is older is quickly counteracted by the realization that the clothes are not new. Only if hand-me-downs are changed by dyeing or by sewing on new ornaments will the child be satisfied.

Color. Children of all ages are especially interested in the color of their clothes. If a garment is of a favorite color, they will like it, whether it is becoming or not. Most young children like light and bright colors, primarily because they have great attention value. No red, for example, is too red or no green too green to appeal to a young child. As the child grows older, he shows a preference for darker and less highly saturated hues of his favorite colors and he learns to combine colors that are regarded as attractive combinations.

Ornamentation. Young children are far more interested in the ornamentation of their clothes than in their styles or fit. They discover that ornamentation has great attention value. Since girls' clothes can be ornamented more than boys', girls are interested in ornamentation of all kinds—ruffles, bows, braids,

Box 16–2

NEEDS SATISFIED BY CLOTHES

Autonomy

The baby satisfies his need for autonomy by removing his clothes and by trying to dress himself. The young child satisfies this need by selecting the clothes he wants to wear, and the older child by wearing his clothes as he pleases, regardless of adult protests about his appearance or the appropriateness of his clothes for the occasion.

Growing Up

Since the child equates autonomy with age, he wants clothes that create the impression that he is older than he is. He often scorns clothes that are appropriate for his age and wants clothes like an older sibling or playmate.

Attention

The child discovers at an early age that clothes can have great attention value if they are brightly colored, ornamented, or new. Only when he realizes that attention can be unfavorable is he willing to conform to adult standards of appropriateness and good taste.

Individuality

The child soon learns that clothing helps to identify him as an individual. Even during the gang age, he can retain his own identity by wearing clothes like the peer group but in his favorite colors.

Identification with the Peer Group

Clothes are one of the quickest ways for the child to show others that he is a member of the social group he wants to be identified with. How he wears his clothes is also a symbol of belonging.

Sex Appropriateness

Before they reach adolescence and become interested in girls, boys want clothes that proclaim their masculinity. They also assume a sloppy appearance, as contrasted with girls' neatness.

Camouflage

From trial and error, children learn that clothes camouflage physical characteristics that make them different or conspicuous. This is more important for girls, because an attractive appearance plays a more important role in social acceptance for them.

buttons, and costume jewelry. They regard such ornamentations not only as means of attracting attention but also as symbols of growing up. Many little girls put on every kind of ornament they own at one time in the hope of winning attention and arousing the envy of their peers, which adds to their feelings of self-importance.

Children soon learn that too much ornamentation wins social disapproval. They then become more selective, using not only less ornamentation but only that which is suitable for the occasion. As childhood draws to a close, much of the overdressing that young children enjoy is replaced by an interest in "correct" dressing.

Materials. Unlike the adult whose interest in materials is concentrated on their durability and appearance of expensiveness, the child's interest in materials is concentrated mainly on their feel. The child likes soft fabrics of all kinds and enjoys touching them. Furs are his special favorites. It does not matter if the fur is real or expensive; if it has a soft feel, he will like it.

Since soft materials, such as silks and velvets, are suitable only for dress-up clothing, the child's liking for these materials adds greatly to his interest in dress-up clothes. By contrast, lack of interest in play clothes is due, in part, to the fact that they are made of sturdy, tough material.

VALUE OF CLOTHES TO THE CHILD

Every child learns that the cultural group places high value on clothes. His parents' emphasis on the right clothes for the occasion, on improving his appearance, on being clean and neat, and on taking care of his clothes—all convey to him the idea that clothes are important. Because they matter to the significant people in his life, they matter to him also.

The aspects of clothing which are important to the child, however, may not be the same as those which have high value for his parents. When the child has a strong need to win social acceptance, his interest in clothes will be in proportion to the role they play in winning this acceptance. When he has a strong need to be like his age-mates, his interest in clothes will be in proportion to their ability to make him look like them.

OBSESSIVE INTEREST IN CLOTHES

In a culture which places high value on appearance, it is normal for a child to be interested in clothes. An undue obsession with clothes, however, suggests some sort of weakness or distortion in the structure of the self; it suggests a personality problem in which clothes are being used as a form of compensation. This interest may be a reflection of fear of adult disapproval and punishment associated with the high value the child's parents place on clothes and on maintaining an attractive appearance.

Similarly, when an obese girl insists upon wearing petticoats and ruffles, one cannot assume that she does not know that they make her look even fatter. She knows that being different is usually interpreted to mean "inferior"; therefore, she wants to dress like her age-mates to counteract any belief they might have that she is inferior to them, even though she is having to choose between two "evils."

LACK OF INTEREST IN CLOTHES

When a child is *deliberately* unkempt and when he wears anything that happens to be readily available because it is "easier" than selecting the right garment, he probably has a personality problem. If he were unaware of the social values associated with clothes, this disregard might be understandable. But no child brought up in our culture can reach school age without being aware of the high value placed on appearance and clothing. Therefore, disregard is not due to ignorance but to defiance of authority and hostility toward the social group.

The more important clothing is to parents, the more the child who feels unloved and unappreciated will defy his parents by refusing to accept their values. Similarly, the child who feels that people outside the home are hostile to him will show his resentment by ignoring their values. A well-adjusted child, by contrast, who must be poorly dressed, out of style, or inappropriately dressed for the occasion or who must wear clothing unsuited to him because of economic necessity feels uncomfortable, ashamed, and inadequate. He wants to conform to social expectations; when economic conditions makes this impossible, he becomes emotionally disturbed.

Interest in Names

The young child is not interested in his name unless others comment on it favorably or unfavorably, thus calling attention to it. Instead, he accepts his name in a matter-of-fact way, just as he accepts his body: It is a part of himself which has always been with him.

Often before school age, however, the child discovers that people regard names as labels or symbols of identity and that the individual is judged by these labels. As McDavid and Harari have pointed out, "People, like objects, tend to be judged by their labels" (86). When the child makes this discovery, he becomes interested in his name.

If the child has an unusual name or one that is difficult for others to pronounce, he feels that his name makes him different from his peers and this arouses his interest in it. If social reactions to his name are favorable, he will like it, or vice versa.

INTEREST IN DIFFERENT NAMES

Every child in our culture has at least two names, his given name and his family name, or surname. In addition, many children have a middle name, and almost all have a nickname or a pet name which members of the family use when they speak to him.

Since the child is known mainly by his first name, his interest will be concentrated on it. Only as he approaches adolescence and his family name is used more often will he have a real interest in it (122). How great that interest will be will depend largely on how people outside the home react to his name. If his family name is different enough from the family names of his peers to be conspicuous or if it is associated with a minority group against which there is peer prejudice, his family name will then become a source of concern to the child and will be a focal point of his interest.

Few children have any interest in their middle names and rarely use them until they reach adolescence. The child will tell others that his name is "John Smith," omitting any reference to the middle name of "Paul." Even when they write their names on school papers or in letters, children usually omit their middle names. Only if the child develops such a strong dislike for his first name that he begs his parents to call him by his middle name has he any real interest in it.

By contrast, children have a strong interest in their nicknames and in the pet names used by their families. They learn that these names are labels that call forth pronounced reactions, either favorable or unfavorable, from others. These social reactions, they discover, are even more pronounced than reactions to their given or surnames and, for that reason, nicknames and pet names become focal points of interest.

LIKED AND DISLIKED NAMES

As the child becomes interested in his name, he develops a liking or a dislike for it. Very infrequently are reactions neutral in the sense that they are devoid of any feeling tone. This is important because of the effect the child's name has on his behavior and personality. The child who dislikes his name may become shy, embarrassed, and sensitive. He may even try to shun social situations. Naturally this will, in time, leave its mark on his personality.

Studies of children's reactions to their names have concentrated mainly on the given or first names and have revealed a number of reasons why children dislike their names (8, 9, 55, 98, 99). Some of these are shown in Box 16–3. Note that, in most cases, it is not the name itself that is disliked but rather the associations others have made with it.

By contrast, when the child likes his name, he does not feel embarrassed by it in social situations. His liking of his name comes from the realization that the attitudes of members of the group are favorable or at least neutral toward it. He discovers, for example, as Sheppard has written, that if people know nothing

Box 16–3

CHARACTERISTICS OF DISLIKED NAMES

- Old fashioned, such as Amy or Hiram
- Often mispronounced, such as Elspeth or Rolf
- Too common, such as Mary or David
- Too unique, such as Eulalia or Horace
- Too long, such as Bonnibelle or Granville
- Too short, such as May or Guy
- Foreign, such as Francesca or Alphonse
- Not sex appropriate, such as Billie or Percy
- Unpleasant association, such as "plain" Jane or Rudolph "the red-nosed reindeer" See Fig. 16–1.
- Hybrid, or used for either sex, such as Lynn or Marion
- Names that are often surnames, such as Dennis or Hillary
- Combinations that can be ridiculed, such as Jessie May Berst
- Names that result in silly or embarrassing initials, such as Charles Otis Wells (C. O. W.)

about him other than his name, they will expect him to be a nice person (114).

The reasons for liking names are, in most cases, the opposite of the reasons for disliking them. A child will like his name if it is enough like the names of his peers to avoid making him conspicuous but also different enough to give him a feeling of individuality. He will like it if it is sex appropriate, if it lends itself to an acceptable nickname, and if it is easy to pronounce correctly.

NICKNAMES

The nicknames children generally like best are the conventional shortenings of their given names, such as "Bea" for Beatrice or "Joe" for Joseph. They realize that these nicknames carry no unpleasant connotation and, hence, are not used as a form of ridicule. Only when others add their own interpretation to conventional nicknames, for example, "Kitty Kat" for "Kitty" or "Joey Boy" for "Joe," do children dislike them.

Studies reveal that while children tend to have a greater interest in their nicknames than in their real names, this interest is based on highly emotionally charged reactions to their nicknames. In most instances, the emotional reactions are unfavorable, because children recognize that their nicknames are verbal caricatures which emphasize some characteristic that their peers are ridiculing. Naturally, this leads to resentment and a feeling of inferiority (93,100).

Nicknames derived in the following ways are almost universally disliked: nicknames emphasizing a physical defect, such as "Shorty" or "Fatso"; nicknames based on personality defects, such as "Cry Baby" or "Pip" for "pip-squeak"; nicknames based on nationality or place of birth, such as "Dago" or "Frenchie"; nicknames coming from names of animals, such as "pig" or "ass"; nicknames derived from initials, such as "Hel" from Helen Eleanor Lewis or "Pal" from Paul Arthur Leonard; and nicknames coming from family pet names, such as "Junior" or "Billy" (45, 93, 100).

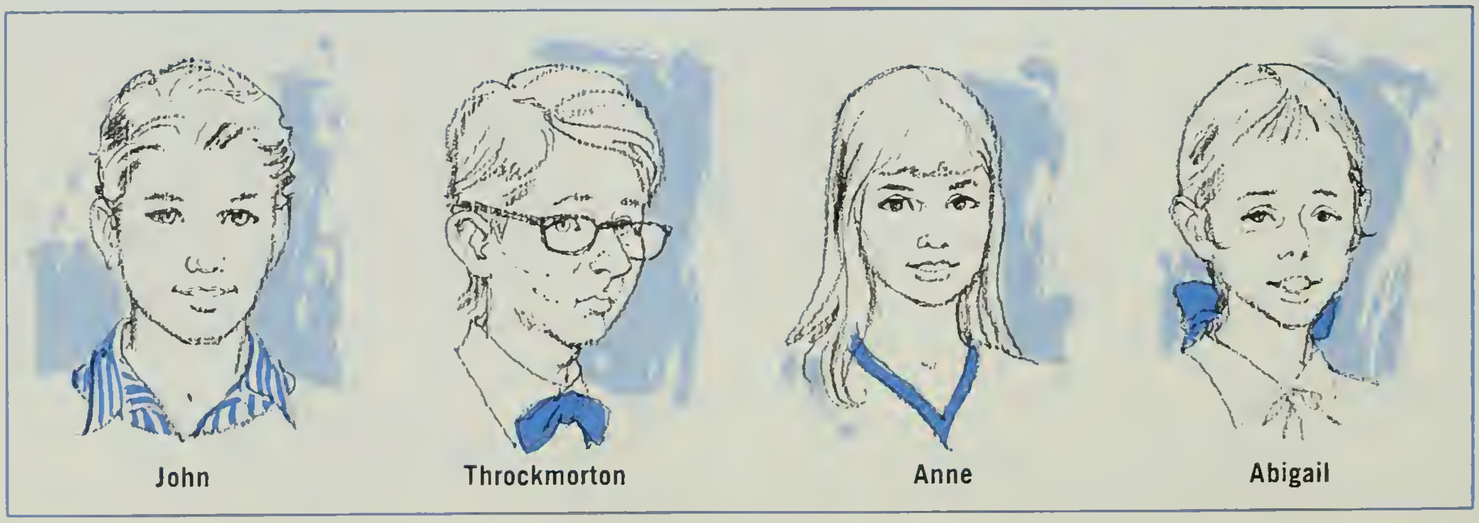
PET NAMES

Typically, a young child is interested in the pet names that members of his family use in addressing him, because the names tell him that he is loved. Such names may also make him feel closely identified with a family member whom he admires and wants to imitate. When a preschool boy is called "Junior," he interprets this to mean that he resembles his father, and this is a source of pride and satisfaction for him.

So long as the child's environment is limited to the family circle, his interest in pet names will be toned with favorable emotions. However, when the child goes out into a broader world, he may discover that members of the peer group use the pet name not as a term of endearment but as a form of ridicule (20). The little boy who was proud to be called "Junior" at home begins to hate that name when his peers use it. Similarly, the little girl who derived great satisfaction from being called "mother's little helper" at home discovers that her peers use that term in a derisive way.

As the child comes to dislike his pet name, his interest in it increases. Fearing unfavorable peer reactions to his family's use of the pet name, the child may

Figure 16-1. Names are symbols in the minds of others.



become hesitant about having peers visit his home or come in contact with members of his family. Such an obsession can result in patterns of behavior that jeopardize social adjustments and impair relationships with family members who resent the child's rebuff.

Interest in Status Symbols

Even before the child comes in contact with members of the peer group, he learns that attention from others can be greatly facilitated by status symbols. This knowledge motivates an interest in status symbols—an interest that becomes stronger as he grows older and discovers the role they play in gaining social acceptance in the peer group.

MEANING OF STATUS SYMBOLS

A status symbol, as Davis has explained, is a "prestige" symbol in the sense that it tells others that the person has a higher status than those with whom he is identified (25). Status symbols for various age groups and social groups differ. Going to a "name" school, for example, is a status symbol for an adolescent but not for a child, because the child does not realize how society rates different schools. Toys and playthings are status symbols for a child but not for an adolescent, because they do not add to his prestige in the eyes of the peer group.

For a status symbol to attract the child's interest, it must meet certain criteria. *First,* it must give the child satisfaction in the form of social attention, preferably from the peer group. Favorable attention, the child knows, is a stepping-stone to group acceptance.

Second, a status symbol must be valued by others if it is to give the child the attention he craves. A large number of toys is highly valued by young children, and so the child who has more toys than his playmates will be envied, and his satisfaction will come from the attention envy brings.

Third, with the child's growing realization of the role played by socioeconomic status, the status symbols that meet the child's needs best are those which proclaim to others, either directly or indirectly, a favorable socioeconomic status. An older child is more interested in his father's occupational standing than the younger child, for example, because he recognizes that socioeconomic status and occupation go hand in hand.

Fourth, to arouse a strong interest in the child, status symbols must be visible for all to see. Invisible status symbols, which are important to adolescents and adults, are too sophisticated for a child to understand. A child cannot understand the status-symbol value of club membership or family background and, as a result, he is not interested in them. Ryan (108) has discussed this criterion of status-symbol value:

> *The child thinks in concrete rather than in abstract terms. It is much easier for him to attribute acceptance or rejection to something tangible such as possession of the uniform or symbol of the group than it is to attribute it to something intangible such as sportsmanship or friendliness.*

SOME STATUS SYMBOLS IN CHILDHOOD

At all ages, *material possessions* are the most universal of status symbols. Even before he enters school, the young child discovers the prestige value of toys, clothes, and other possessions. He boasts and brags about what he has and claims that his possessions are superior. When he visits the homes of his playmates, he compares their possessions with his. If he thinks theirs are better, he becomes dissatisfied and envious. His wishes and daydreams begin to center around material possessions, and his dissatisfaction and envy grow. Studies reveal that such status symbols as toys, bicycles, athletic equipment, cars, clothes, television sets, radios, and pianos stand at the top of the list. Among city and suburban children, a pet cat or dog is often regarded as a status symbol (2, 32).

By the fourth or fifth grade, most children can identify the symbols of social status and relate them quite accurately to economic status. Then the child comes to judge others and himself in terms of his *father's occupation.* If it is a prestigious occupation that enables the family to have the status symbols that win prestige in the eyes of the peer group, it will become a source of keen interest to the child. This is true also of such status symbols as *club membership* and *parental leadership roles* in community organizations (102).

Each year, children become increasingly aware of the role status symbols play in social acceptance, and their interest in them increases. They play a more important role in the social acceptance of girls, and so girls are more interested in them than boys.

QUANTITY VERSUS QUALITY IN STATUS SYMBOLS

Young children are primarily interested in the *quantity* of the status symbols they have. If they have more toys, more family television sets, and more cars than their peers, they feel superior, and this increases their interest in status symbols.

As childhood draws to a close, children begin to appreciate *quality* in status symbols. Girls recognize that having more dresses than their peers is not necessarily synonymous with being superior to them unless their dresses are made of better material and come from more prestigious stores. Similarly, the older boy learns that a small foreign-made car of expensive design carries more prestige than a large car of inexpensive make. With this discovery, the child's interest shifts from quantity to quality.

As children begin to become cognizant of deviations from the average, they notice first those which are qualitatively inferior. They notice a dilapidated house sooner than one of equal size but in a better state of repair. In addition, they are far more attracted to upper-status patterns of living than to lower-status patterns and are more favorably impressed by things that are of better quality (37).

Box 16–4

SOME CHILDISH RELIGIOUS CONCEPTS

- *God.* God is a very large person, dressed in white flowing garments, with a kind or stern face and white beard. He is a "watcher," and punishes those who misbehave, though he can be supplicated through prayer. He rewards those who are good and sends them to Heaven when they die.
- *Heaven.* Heaven is God's abode in the clouds where people have everything they want and where there is eternal peace and happiness.
- *Angels.* People who are good during life go to Heaven after death and become angels, dressed in flowing white garments.
- *Hell.* Hell is a place below the earth where there is eternal unhappiness and punishment for those who have been bad during their lives.
- *Devil.* Hell is ruled over by the Devil who is in the form of a man with horns and a tail. He carries a pitchfork and is red all over.
- *Miracles.* Miracles are acts which only God can do.
- *Bible.* The Bible is a book written by God. Every word of it is true and to doubt it is sinful.
- *Life after death.* After death, the person goes to Heaven or Hell, depending on whether he was good or bad.
- *Prayer.* Prayer is a way of asking God for something important.

Interest in Religion

Religion includes two elements: belief and practice. The younger the child, the greater his interest in religious practices. Interest in beliefs is slower in developing because it depends upon intellectual development; the younger the child, the less able he is to comprehend the meaning of religious beliefs.

The child's interest in religion is fostered by the training he receives in the home, Sunday school, synagogue, or church and by the emphasis placed on religious observances in his daily life. The child who is taught to say grace before meals, who is expected to say prayers before going to bed, and whose parents read or tell him stories from the Bible will have a greater interest in religion than one whose main contact with religion is his weekly visit to Sunday school.

Every young child, regardless of the religious instruction he receives, is curious about the heavens above him, which produce rain, snow, and sunshine, as well as about the everyday world. Between the ages of 3 and 4 years, the child's questions often relate to religion. "Who is God?" "Where is Heaven?" "How do you get there?" The child accepts almost any answers he gets, but they satisfy him only temporarily and, in many cases, lead to doubt and skepticism during the adolescent years.

RELIGIOUS BELIEFS

A child's religious beliefs largely reflect his teaching in the home. If a child is taught to think of God as a person who will become angry when people do something wrong and to believe that He will punish people for their sins, his beliefs about religion will be very different from those of a child who has had God presented to him in another manner. If his teaching employs everyday language and experiences, the child develops definite and concrete concepts. Since these concepts assume a personal meaning for him, he is likely to accept them uncritically (1, 75).

The religious beliefs of a young child are usually based on realistic concepts. He thinks of God, Heaven, Hell, angels, and the Devil in terms of the pictures he has seen of them or the stories he has been told about them. Later, as the child's comprehension increases and as his experiences become more varied, his concepts change. His concept of God as a father will be influenced by his experiences with his own father and with the fathers of his friends. Likewise, the concept the child has of sin and forgiveness will reflect the way he has been treated when he misbehaved (37, 64).

Children's beliefs vary, reflecting their individual training and experiences, but certain religious concepts are widely held by most American children (1, 46. 79). The most common of these are given in Box 16–4.

EXPRESSIONS OF RELIGIOUS INTEREST

The child who has a strong interest in religion will devote considerable time to religious activities. How long his interest will persist depends largely on how long he continues to believe what he has been taught. His beliefs are often weakened when he discovers that they conflict with those of his friends or with what he learns at school or from his reading.

The most common ways in which children express their interest in religion are discussed in the following paragraphs.

Interest in Religious Stories. The stories in the Bible appeal to the young child in much the same way as fairy tales Both relate to people, countries, and situations so different from the everyday environment that the child enjoys hearing them over and over. At different ages children show preferences for different parts of the Bible. Children under 8 years of age prefer stories relating to the birth and childhood of Jesus and the childhood of Samuel, Moses, Joseph, and David, while older children show a greater interest in the historical books of the Old Testament. Most children are interested primarily in persons and happenings rather than doctrines (67, 96, 104).

Interest in Prayer. Children under 8 years feel that prayer is a way of talking to God; they believe that God answers their prayers by telling them how to be good or what to do or not to do. They ask God for material things and for help in doing things they feel incapable of doing alone. Older children ask for help, seek forgiveness for misdeeds, and thank God for His help (79). On the whole, as Manwell and Fahs have pointed out, children's prayers are a "begging ritual," with emphasis on "pennies from heaven" (81).

Their analysis has revealed that children's prayers fall into three major categories, each of which relates to specific things children seek through prayer.

First, prayers concern the variety and abundance of the good things of life for which little children are encouraged to thank God. An example of this kind of prayer is:

For my big ball and kiddie car
On which I ride so fast and far
Thank you, Father, thank you.

Second, children make direct petitions for special privileges, for guidance. and for protection and care, especially during the night. This is illustrated by the child's favorite prayer:

Now I lay me down to sleep,
I pray thee, Lord, my soul to keep.
If I should die before I wake,
I pray thee, Lord, my soul to take.
If I should live for other days,
I pray thee, Lord, to guide my ways.

Third, children pray for personal help in doing things they are led to believe they cannot achieve by themselves, such as:

Father lead me day by day
Ever in thine own sweet way.
If I'm tempted to do wrong
Make me steadfast, wise, and strong.
Show me what I ought to do,
Teach me to be pure and true (81).

Figure 16–2 shows the typical transition in the reaction to prayer as the child grows older.

Interest in Religious Observances. Religious services may appeal to the child because of their colorful pageantry. He likes to sing, and the ritual of the service intrigues him. He enjoys looking around at people at worship, to see what they are doing. His attitude is a mixture of awed reverence and curiosity.

When the novelty of the service wears off, the child begins to rebel against attendance. He enjoys going to Sunday school only as long as his friends go. He likes young people's organizations, such as gymnasiums in the cities and "socials" in small communities, picnics, holiday celebrations, and outings. His interest is thus primarily social rather than religious.

Toward the end of childhood, both boys and girls, but especially boys, attend Sunday school, synogogue, and church less and less and participate less actively in organizations connected with them (10, 37, 102).

RELIGIOUS DOUBT

Although young children tend to accept religious teachings implicitly, almost all express some doubts. This is apt to occur when prayers are not answered and is most frequent among very bright children. When the episode that gave rise to the doubt passes, his doubt is quickly forgotten.

The older child is often confused about denominational differences and expresses concern about which doctrines are right. Likewise, he may become critical of some of the religious concepts he learned when he was a little child. This may be due to the inadequacies and inconsistencies in his religious teaching, but it is more likely to result from his studies in school, especially his study of science. By the time the child reaches adolescence, his greater mental maturity and his increased knowledge lead to strong doubts about his religious teachings.

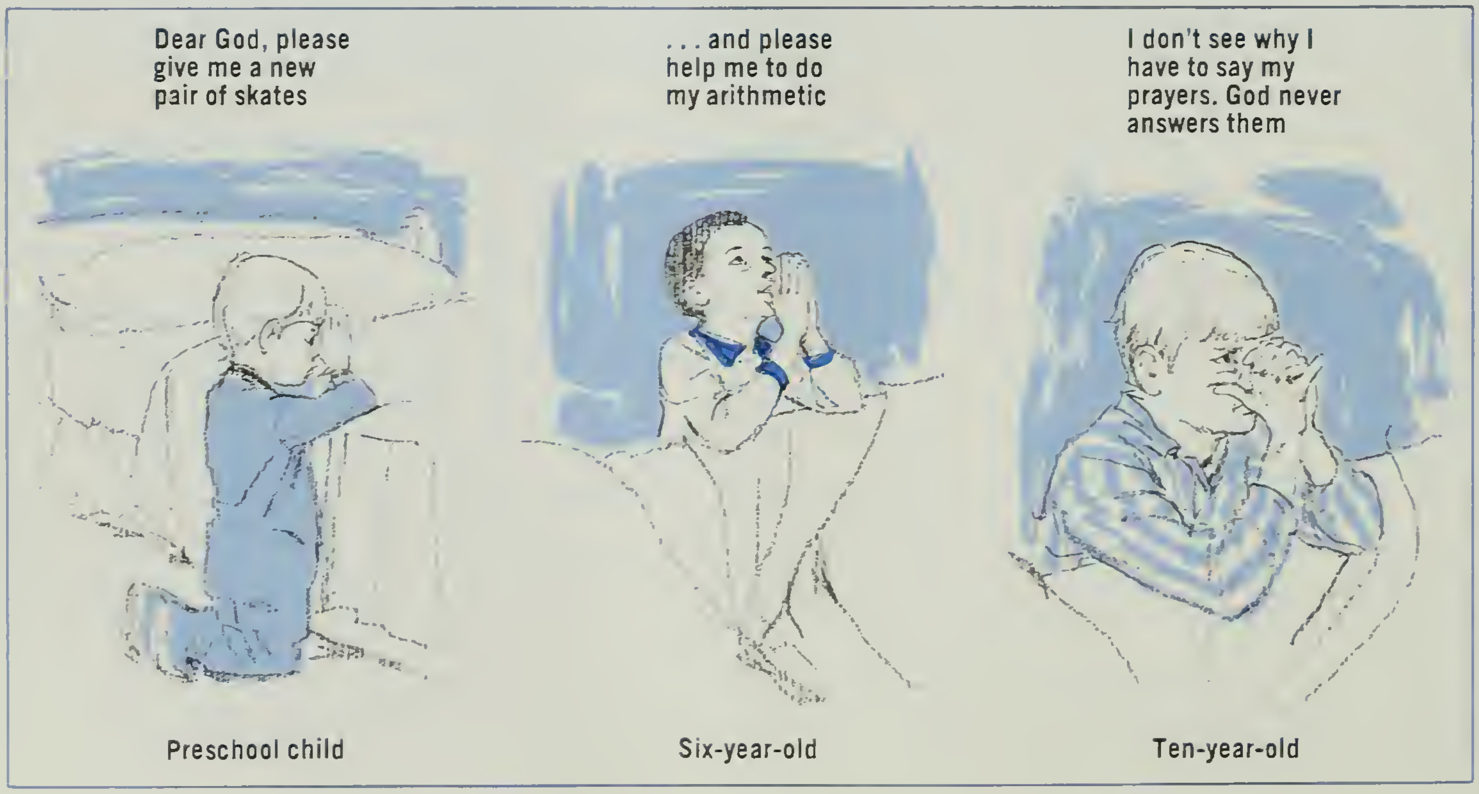
Very often a child assumes a critical attitude because he enjoys asking questions to put the Sunday-school teacher "on the spot." What appears to be religious doubt is, in reality, little more than a form of childish "smartness." How superficial the critical attitude of the child is may be seen from the fact that he is not really worried or distressed; he forgets the whole matter after Sunday school is over. This contrasts markedly with the adolescent, who ponders over religious concepts and becomes emotionally disturbed when they conflict with scientific or pseudoscientific ones.

As long as the child can believe without question what has been taught at home or in school, his interest in religion will persist. When he begins to doubt the teachings, his interest wanes; the greater the doubting, the greater the waning in interest. Typically, this begins as the child approaches adolescence. Doubt is often intensified by peer pressures. When a child's friends say they doubt the religious beliefs of their parents, doubting becomes the popular thing to do.

Interest in Sex

While interest in sex is common among children at all ages, it is greater among young children after they enter school and have closer and more frequent peer

Figure 16–2. Typical transition in children's prayers.


Dear God, please give me a new pair of skates
. . . and please help me to do my arithmetic
I don't see why I have to say my prayers. God never answers them
Preschool child
Six-year-old
Ten-year-old

contacts. Interest in sex increases, until by puberty it occupies much of the child's waking time. At no period in life, with the possible exception of early marriage, is interest in sex so preoccupying as it is during puberty.

Curiosity about Sex. Interest in sex is shown most clearly in the child's curiosity about all matters pertaining to sex. This interest increases as the child grows older and is capable of seeing and understanding things that were incomprehensible to him when he was younger. Should a pet, for example, have young, the little child's interest will be concentrated mainly on playing with the young. The older child, by contrast, will be curious to know the whys and wherefores of their arrival. Similarly, the matter-of-fact acceptance of genital differences on the part of the young child will be replaced by a strong curiosity about these differences. From his own experiences, the child learns that there are reasons for everything, and he wants to know the reason for these differences.

In the process of exploring his body, the baby sooner or later touches his sex organs and discovers that this results in a pleasurable sensation. By chance, he discovers his navel and derives fun from putting his fingers in the "hole." Other than that, sex arouses no curiosity in the child until approximately the end of the third year, when the boy notices that his body differs from that of the little girl; that he stands up when he goes to the toilet, while she sits down; and that adults have certain physical features, such as "bumps" and hair on the body, which little children do not have. The genitals are the focus of interest in the young child. His attitude is completely impersonal and objective, however, with none of the morbid interest one associates with adolescent curiosity (84).

Six-year-olds show an active and frank curiosity about sex matters, more far-reaching than that of preschool children. They are definitely aware of differences in the body structure of boys and girls and seek an explanation for these differences. This curiosity is not purely intellectual but has a strong emotional tone. As children grow older, sexual curiosity becomes disguised. It is there, nevertheless, and is merely suppressed because children have learned that they may be punished if they express it too aggressively.

With the radical changes that take place on the surface of the body at puberty and with the accompanying new sensations of the sex organs, interest in sex becomes subjective and personal. It is not, for example, concentrated on the origin of babies or on genital differences, but rather on how the changes that are taking place in the body affect the child personally.

Of the many methods children use to satisfy their curiosity about sex, the most common are asking questions, exploring the sex organs, engaging in homosexual play, and masturbating. See Box 16-5 for a brief description of these methods.

While each method of satisfying his curiosity could yield satisfactory results for the child, each has its drawbacks. One of the difficulties of asking questions, for example, is that the child lacks adequate sex vocabulary. Most children, however, acquire names for the genital organs, such as "thing" for both the

Box 16-5

METHODS OF SATISFYING CURIOSITY ABOUT SEX

Asking Questions

Among preschool children, the most common questions relate to the origin of babies, the coming of another baby, the sex organs and their functions, and physical sex differences. Among older children, the emphasis is on the origin of babies, the process of birth, and the father's part in production.

Exploration of the Sex Organs

At first, the child explores his own sex organs, but by age 6, mutual exploration with a peer of either sex is common, often in "doctor games." Exploration consists of insertion of objects into body orifices, insertion of the penis into the vagina, direct observation of the anatomy, manual exploration, oral contacts, exhibitionism, and comparing masculine prowess in the toilet.

Homosexual Play

As a means of satisfying curiosity, play with members of the same sex is more common than heterosexual play. Homosexual play mainly involves exploration of the genitals.

Masturbation

The child engages in this form of sex play to satisfy his curiosity about the sensations he receives when he handles his genitals. In general, boys are introduced to masturbation by older boys or adults, while girls learn from their own exploration or from watching other girls.

male and the female genital organ; "puss," 'hole," "susie," and "pocketbook" for the female organ; and "teapot," "piece of rope," or "hose" for the male. Unquestionably, some of the misinformation the child acquires and then passes on to his friends comes not from faulty teaching but from *misinterpretation of teaching* which is too advanced for the child to comprehend.

Sex play, both homosexual and heterosexual, may be limited by unfavorable social attitudes and punishment. Sometimes children from the lower social classes are not taught that sex play is wrong, therefore, they have little feeling of guilt or shame, even if caught in such play. By contrast, most children from the middle and upper social classes learn that any form of sex play is considered wrong, and they are almost always punished if caught. This does not stop them from satisfying their curiosity; it merely encourages them to engage in sex play in secret.

Unfavorable social attitudes toward masturbation are a strong deterrent to satisfying curiosity by this method. While no known physical harm comes from masturbation, its psychological damage, stemming from unfavorable social attitudes, may be serious. Many children who are poorly adjusted and unhappy turn to masturbation as a source of compensation for their feelings of inadequacy. The more they masturbate, the more inadequate they feel; this is reflected in poorer and poorer adjustments, accompanied by greater unhappiness.

ATTITUDES TOWARD SEX

As the child satisfies his curiosity about sex, he acquires attitudes which determine the quality of his behavior. The child learns to regard sex as the significant people in his life regard it. As these significant people change from parents, to teachers, to peers of the same sex—and, in adolescence, to peers of the opposite sex—the child's attitudes will change also. The basic attitude established in the home in the early years, however, dominates later attitudes. As Mussen et al. (94) have stated:

> *No amount of information or reassurance in preadolescence or adolescence will enable the child to adopt a healthy attitude toward sexuality if in the preceding years he has been taught to fear sexual responses. . . . Clinicians have found that when unfavorable sexual attitudes have been built up it is extremely difficult, and sometimes impossible, to shift them through the use of rational advice given in adolescence. Even extensive psychotherapy may fail to change attitudes which have become too deeply ingrained.*

The damaging consequences of unfavorable attitudes are not limited to sexual behavior. If the child learns to think of the sex organs and their functions as something to talk about only in a whisper, if he thinks touching his sex organs is wicked and depraved, and if he learns to think of the marital relationship as something to be "endured" only for the sake of having children, his feelings about many aspects of life will be affected. While this may not matter very much when he is a child, it will affect his social and personal adjustments as an adult.

A number of factors influence the child's attitudes toward sex. The two most important are the methods used to give the child information about sex and the source from which he receives his information.

Methods of Giving Information. The amount and accuracy of the information the child receives are not as important in the shaping of his attitudes as the way in which the information is given. A child may forget most or all of the answer to his question, "Where do babies come from?" but he is not likely to forget the *way* in which it was answered, the expression on the face of the person who answered it, or the ease or difficulty the person had in talking to him about it. These behavior symbols convey to the child how that person feels about sex.

If the symbols suggest to the child that the person regards sex as a natural phenomenon, he will learn to think of it that way too; if the symbols suggest that sex is something to be talked about in whispers, that it is embarrassing and not entirely "nice," he will adopt a similar attitude. As Mussen et al. have emphasized, "The important part of sex education depends not on biological instruction per se, but upon the demonstration of healthy attitudes on the part of parents, teachers, and other influential adults" (94).

Source of Information. While it is generally agreed that the child should get his first information about sex from his parents—preferably a parent of the same sex—some parents are incapable of giving this information accurately because of limited knowledge or psychological inhibitions. Other parents have such an unfavorable attitude toward sex that any information they give, no matter how accurate it may be, will be unintentionally misleading or biased. Parents who surround sex with mystery and taboos or who establish a "conspiracy of silence" not only encourage the development of unfavorable attitudes but also whet the child's curiosity.

On the whole, children who get their first information about sex from their parents or from school have more favorable attitudes than those who get it from other sources (84). The education and socioeconomic status of parents also play a part in forming children's attitudes toward sex; children from more favorable backgrounds have more healthy attitudes (41, 94).

Far too many children get their information about sex from a friend or classmate. It is often given in whispers, with demands "never to tell" where it came from, and is usually accompanied by giggles and sneers. Under such circumstances it would be hard for children to develop wholesome attitudes toward sex (18, 42, 111, 115). Children who do not get the point of dirty stories and suggestive pictures are likely to be confronted with roars of laughter and taunts of "lily-white," "innocent," or "pure" if they ask their friends for explanations. While such remarks may be only the friends' way of covering up their own ignorance, they suggest to less experienced children that their peers consider them too young to understand these matters. This adds to the confused information they already have.

Books written in a matter-of-fact way to give a child the "facts of life" generally encourage a wholesome attitude. There is no guarantee, however, that they always will. A child who has been brought up to believe that babies are brought by the stork or the doctor may find the coldly stated facts and the unadorned drawings of pregnancy and childbirth a traumatic experience. Unless he has someone to interpret such a book to him in a sympathetic way, he is likely to develop feelings of fear and revulsion which are not easy to overcome.

SEX EDUCATION

Sex plays an important role in human life, and the foundations for each individual's attitudes and responses are laid in childhood. Whether attitudes toward sex will be healthy or not will depend largely on the source of the child's information. In few other areas of development is proper guidance more vital.

If the child could remain ignorant about sex until he reached junior or senior high school, he could be expected to get accurate and adequate information from specially designed sex education courses or science. But this is impossible. Even before he enters the first grade, the child has gathered some information, or misinformation, and has already developed an attitude. As Reuben (107) has explained:

> *Information about sex is self-pollinating. Everyone in this world finds out about sex in one way or another. The education comes from fences and washroom walls, from the classroom and the locker room, from parents, from films and, most of all, from friends. Boys and girls and boys and boys and girls and girls are constantly exchanging sexual gossip and sexual rumors and sexual fantasies. Most of the time they also are engaging in ingenious sexual experiments, trying to find out what every human being has a right to know.*

Kinds of Sex Education. If the child is to have correct and adequate information about sex to meet his developmental needs and if he is to have healthy attitudes, he needs well-planned and carefully guided sex education given by persons who are properly trained and emotionally equipped to do the job successfully. Two kinds of sex education are needed: constructive and preventive.

Constructive education, while giving facts, concentrates on the positive aspects of sex, explaining to the child the meaning of sexual behavior and its primary functions in the person's life. It should build up healthy attitudes about sex and marriage. *Preventive* education, while giving facts, as does constructive education, concentrates on teaching the child what to avoid in his sexual relationships. If properly given, it, too, should contribute to the development of healthy attitudes and should not terrify the child by overemphasizing the ill effects of sexual promiscuity.

In far too many homes, more emphasis is placed on preventive than on constructive education. Girls, for example, are warned to be careful in their relationships with boys to avoid an unwanted pregnancy. Boys are warned to watch their step so that they will not contract a venereal disease or be forced into a "shotgun marriage." Such emphases, unfortunately, develop unwholesome attitudes which may never be fully counteracted as the child grows older and is given more constructive sex education in school or in college.

Sources of Sex Education. Who should give the child information about sex? At the present time, no question about child rearing is more hotly debated. It is generally agreed that sex education is a parental privilege as well as a parental responsibility. But many educators and psychologists question whether parents as a whole are well enough equipped with facts and wholesome attitudes to do the job properly.

Today more and more children are getting sex instruction earlier than in past generations and more are getting their information from parents and relatives. In one study, it was reported that the instruction given to boys by both their mothers and fathers and to girls by their fathers was very poor. The instruction given to girls by their mothers was reasonably good. Only 60 percent of the girls studied had been prepared for menstruation and the changes that occur at puberty by their mothers. In about 90 percent of the boys studied, no information about nocturnal emissions or masturbation was given by either the fathers or the mothers (115).

While the poor quality of sex instruction children receive from their parents stems partly from parents' ignorance and embarrassment about discussing "personal" matters with their children, some of the trouble stems from poor parent-child relationships. Many children, feeling rebuffed by their parents when they ask questions, turn to other sources. Each year, the barrier between children and parents seems to widen and many parents willingly relinquish their responsibility for instructing their children about sexual matters, turning it over to schools, churches, and camp counselors (30).

Currently, many people feel that schools, camps, and churches should *offer* sex education courses for children whose parents want them to receive their information from trained instructors outside the home. Such courses are rarely offered on a compulsory basis, and, in most cases, schools and churches require that the parents sign a statement that they wish their child to take part in the course before he is admitted.

This is a relatively new approach to sex education, and educators are still uncertain about a number of questions. Should boys and girls be grouped together, as in other classes, or separately? Should the instruction be given as a part of the science course or as a seperate course? Should the course be taught by a science teacher, a nurse, or a doctor? And should it concentrate on basic scientific facts or add information about the emotional relationships in love and marriage?

Until there has been time to assess the results of sex education outside the home, no one can judge whether it is better for children to receive their information in this way than from a family member. There is no doubt that children will receive more accurate information from appropriate courses than from embarrassed or unknowing parents, but the answer to the question of which approach is better will depend upon how the children's attitudes and responses are affected. The answer at present is inconclusive, but available evidence suggests that schools and churches are fostering more wholesome attitudes than most—but not all—home instruction.

Interest in School

To a young child, going to school means "growing up"; he looks forward eagerly to the time when he will have the status of a "school child." As he progresses through the grades, however, his interest in things that are distinctly a part of school and scholarship declines, and his interest in things that go along with life outside school, such as recess, play, and sports, increases. By the end of elementary school, the child often dislikes his teacher, the school program, the rules and regulations of the school, and the school's physical appointments. He rebels against doing his homework and longs for the time when he can leave school.

This change in attitude toward school is by no means universal. It has been reported, however, that, by the time children reach the fifth or sixth grade, about one out of every five is dissatisfied with school or "hates" it (39). On the other hand, it must be remembered that children in the gang age feel that they have to do or say whatever their peers do or say. As in the expression of prejudice, it may be that, in saying he dislikes school, the child is simply following the crowd in the hope of winning peer approval.

Interest in school not only changes as the child grows older but becomes more *selective*. Some children are interested primarily in academic activities, and others in extracurricular activities. Since the major part of the school day is devoted to academic work, the child who fails to find that interesting will have an unfavorable attitude toward school in general. Box 16-6 shows the major reasons for children's interest in different school activities.

FACTORS INFLUENCING SCHOOL INTERESTS

The steady decline in interest in school as children grow older is caused by a number of factors. Those discussed below are the most influential.

Early School Experiences. If the child makes good adjustments to school, his attitude toward school and his interest in it will be far more favorable than if he makes poor adjustments. While these adjustments are influenced, in part, by the attitudes he brings to school from the home, they are also influenced by his *readiness*, both physical and psychological, for school.

Readiness, to a large extent, is dependent on age. Since schools in America are planned for school entrance at the age of 6 years, underage and overage children are more likely to have social- or emotional-adjustment problems than children who enter at 6 (116).

Psychological readiness means more than readiness to learn what is taught in school. It means that—at the level that is considered normal for his age—the child is able to be independent of adult aid and direction, that he can adjust socially to strangers, that he is emotionally mature enough to accept the restrictions school demands without becoming disturbed, and that he is able to accept prestige hierarchies among his classmates, in which he may not have the high status he would like to have. Whether the child is psychologically ready for school will depend mainly on his training at home and his previous social experiences. Children who have attended nursery school or kindergarten generally make better adjustments to school than those who have not.

Parental Influences. The influence of parents is one of the strongest and most persistent factors determining the child's interests in school. Not only do parents influence his attitude toward school in general, but they have a profound influence on his attitude toward the importance of education, toward studying, toward different school subjects, and toward his teachers. When parents show an interest in the child's schooling and pride in his achievements, he usually lives up to his capacities. When they are indifferent, the child is likely to be indifferent also.

While most parents, even if their own education has been limited, feel that their children should have a good education, they unfortunately foster—often unconsciously—unfavorable attitudes in their children. Many parents, for example, have unfavorable attitudes toward teachers as a group. These influence their children's attitudes. As Stone and Church (120) have stated:

> *Some of our negative feelings about education are early communicated to our children, making it difficult for them to approach school with the enthusiasm that is developmentally so timely. Quite early, adults (especially men) convey to children (especially boys) that school is to be spoken of disparagingly, that it is something of a penal institution, that it is less an opportunity than a forced drudgery, and that real life ends at the schoolhouse door.*

Parents also have a very strong influence on the child's attitude toward different school subjects. Most parents, for example, feel that boys should do well in mathematics and should like the subject, but that girls can gain little from it. They think it "odd" for a girl to be interested in a subject so sex inappropriate. As a result, as Poffenberger and Norton have explained, "Self-concepts in regard to mathematical ability are well established in the early school years and it is very difficult for even the best teacher to change them in spite of the fact that potentiality is much in evidence" (105).

Sibling Influences. Since young children identify with and imitate their older siblings, their attitudes toward school will be greatly influenced by the older siblings' attitudes. Boys tend to have less favorable attitudes toward school than girls, and so the child with an older male sibling is more likely to have an unfavorable attitude than one with an older female sibling.

Peer Attitudes. To ensure his acceptance by the peer group, the child learns that he must accept the

Box 16-6

WHY CHILDREN ARE INTERESTED IN DIFFERENT SCHOOL ACTIVITIES

Interest in School Subjects

Children are interested in subjects they find satisfying, relevant to their needs, and easy. They lack interest in subjects that they feel are irrelevant, difficult, boring, and taught in an unexciting way.

Interest in Extracurricular Activities

Interest in recess periods, sports, clubs, games, and physical education increases as children advance in school. Since enjoyment of these activities depends on peer acceptance, the child who is well accepted finds them more interesting than the child who is marginally or poorly accepted.

group's interests and values. One such value relates to school. Part of the child's unfavorable attitude toward school is unquestionably peer-instigated. He must verbalize his dislike for school or run the risk of being called a "brain" or "teacher's pet." If his friends gripe, he will gripe; he cannot afford to be different because this will jeopardize his status in the group. The child's unfavorable attitude toward school often, as Harris has said, "reflects no more than the widespread and thoroughly American characteristic of unfavorable criticism of his institutions" (54).

Acceptance by Peer Group. No child can be expected to like school if he is unpopular. Good relationships with the teacher and good marks do not compensate for lack of acceptance by the peer group.

Children who belong to minority religious or racial groups or whose families are identified with lower-level vocations often experience poor peer acceptance. Children who deviate markedly from the norm in mental ability likewise usually enjoy poor social acceptance. Furthermore, very bright children tend to be hypercritical of school in general and of their lessons and teachers in particular; this attitude does not increase their liking for school or their acceptance by their less critical classmates. Dull children often dislike school because of peer rejection and because they are made to feel inadequate both in the classroom and in play.

Academic Success. In our culture, academic success is measured by grades and awards. These tell the child how he rates in relation to his classmates and have a marked influence on his attitude toward school. There is a high correlation between a child's grades and his perception of school. There is also a high correlation between a child's grade in a particular school subject and his attitude toward that subject. A poor grade stifles his motivation to try to do better. This results in an even poorer grade, with an increasingly unfavorable attitude toward school (39, 105, 123).

When a child is faced with academic failure, he is apt to develop compensatory defense mechanisms. Poor readers, it has been reported, are often aggressive, cocky, and hostile toward authority. These unfavorable personality characteristics decrease their chances of social acceptance. Lack of acceptance, in turn, decreases their liking for school. Good readers, by contrast, have pride in their achievement, make better social adjustments, and consequently develop a more favorable attitude toward school (39, 56, 120).

Attitude toward Work. Even preschool children make a distinction between "work" and "play" and have definite feelings about activities belonging to these two categories. By the age of 10, children have developed a dislike for *anything* that might be considered work. This antiwork attitude shows itself indiscriminately in all activities connected with the school as well as with the home (128).

Teacher-Pupil Relationships. Although some children like their teachers, those who do not are apt to criticize school mainly because of their dislike for the teacher. The preschool child is more dependent than the elementary school child; as a result, he generally has a friendly attitude toward his nursery school or kindergarten teacher. If his attitude is hostile at first, it gradually becomes more favorable. The older child shifts his interest from teacher to peers, and his interaction with the teacher becomes more formal.

At every age, individual differences in teacher-pupil relationships can be observed. Some older children like their teachers better than younger children do, and some young children have such an intense dislike for their teachers that they rebel against going to school. What the teacher-pupil relationship will be depends upon many factors, some of which are given in Box 16–7.

Emotional Climate of the School. A teacher who is poorly adjusted will have trouble with classroom discipline and make the pupils dislike her and school. The effect of the teacher's poor personality adjustment is shown not only in poor discipline but also in the emotional reactions of the pupils.

By contrast, a teacher who has a favorable concept of the teacher's role and who likes teaching and is friendly with pupils motivates them to work up to their capacities. Such a teacher has relatively few disciplinary problems. A relaxed, friendly atmosphere in the classroom promotes a favorable attitude on the part of the pupils both toward the teacher and toward school.

Interest in Sex Appropriateness. From an early age, children are interested in what is considered appropriate for members of their sex. This is especially true of boys, who are constantly pressed by fathers, older brothers, and peers to look, act, and think like regular boys and to avoid everything that might mark them as sissies.

With the classroom in the control of a woman teacher, with an equal or even larger number of girl than boy pupils, and with girls receiving, on the whole, more favorable treatment from the teacher, boys begin to believe that school is essentially a feminine place. With each passing year, they feel that school is primarily for girls and that it is not an appropriate place to train boys for a masculine role.

Boys regard many school subjects as feminine and inappropriate for boys. They feel that reading, art, social studies, and, later, languages and literature will be of little value to them when they leave school and, as a result, they have little interest in them. Girls feel that these subjects will be valuable to them, while they question the need for mathematics and science. Figure 16–3 shows how boys and girls rank achievement in different areas of schoolwork, both academic and extracurricular.

EFFECTS OF INTERESTS ON BEHAVIOR

When children are interested in school and the academic and extracurricular activities connected with it, they enjoy the time spent in school, have good relationships with their teachers and classmates, do the work assigned to them to the best of their abilities, and are good "school citizens" in the sense that they try to obey the rules and regulations and avoid troublemaking. Because of their favorable attitudes and behavior, they are liked by their teachers and classmates. This further increases their liking for and interest in school.

On the other hand, children who are bored with school or actually dislike it show it by behavior that annoys their teachers and classmates and increases their dislike for school. The most extreme examples of such behavior are truancy and school phobia.

Truancy. The truant is a child who absents himself from school *without* a lawful cause and without the permission of parents or school authorities. He goes where he can do as he pleases without being seen by parents, neighbors, or law-enforcing officers. He may leave school in the middle of the day, complaining to the teacher that he "doesn't feel well" or that his parents want him to come home early. As there is always the chance that parents will be notified when a child leaves school at mid-day, however, the truant usually skips school for the entire day.

Children who are truants *with* their parents' knowledge and consent have adopted their parents' attitudes toward school and learned to place a low value on education. This is often true of children of lower socioeconomic groups, whose parents want them to help at home or get jobs as soon as they look old enough to obtain working papers.

School Phobia. School phobia is a total or partial aversion to school and is expressed in such physical symptoms as nausea, anorexia, and a slight fever. The child may go to school and then complain of some somatic problem, such as upset stomach or headache. On the surface, the child's fear of school appears to stem from some aspect of the school situation, as shown by heightened anxiety when it is time to go to school. There is little evidence, however, that such is the case. Instead, the fear is part of a generalized

Box 16–7

FACTORS INFLUENCING TEACHER-PUPIL RELATIONSHIPS

The Child's Concept of "Teacher"

Before entering school, the child develops a concept of "teacher" from parents, siblings, playmates, and stereotypes in books, movies, comics, and TV.

Personal Experiences

When the child feels that a teacher is interested in him and in teaching and that she is a fair disciplinarian, he respects and likes her.

The Child's Concept of a "Good Teacher"

The child's concept of "teacher" is used to assess his own teacher. If she measures up, this contributes to good teacher-pupil relationships.

The Child's Sex

Even in preschool, boys show more hostility to teachers than girls, and their relationships with teachers tend to be poor. This hostility often leads to teacher retaliation and strict discipline, which boys interpret as unfair. Girls have more favorable concepts of teachers, and this contributes to better relationships.

The Teacher's Attitudes

Teachers who like children and are satisfied with their jobs usually get along well with their pupils. Their poorest relationships are with boys, whom they find troublesome and hostile, and with very bright children who tend to be hypercritical of all teachers.

anxiety resulting from fear of being away from the mother, a strong dependency on the mother or a mother substitute, and inability to establish autonomy (7, 68).

While school phobia sometimes develops among older children, it is most common during kindergarten and the first four grades. The older child discovers that fear of school is considered babyish or he may be forced to go to school in spite of his dislike for it. Therefore, he generally projects the blame to someone or something in the school situation. He maintains, for example, that he does not want to go to school because he is not prepared for a test, that the teacher does not like him and that he is afraid of her, or that his classmates are "always teasing him" or "won't play with him." Not recognizing that school phobias are "homegrown," some parents and schools try putting the child into another class or even another school, hoping in that way to change his attitude. This rarely works, because the fault does not lie in the school but in the child and his relationship with his parents.

Under- and Overachievement It is commonly assumed that interest is primarily responsible for the quality of work the child does in school. This means that an interested pupil will do not only better work than his less interested classmates but also better work than one would normally expect from a child of his abilities. It is also widely assumed that when a child works below what one would normally expect, the cause is lack of interest. The teacher is often blamed for not stimulating the child's interest, and the child himself is frequently scolded or punished by parents and teachers because he is "lazy."

Meaning of Underachiever and Overachiever. An *underachiever* is a student whose academic work falls

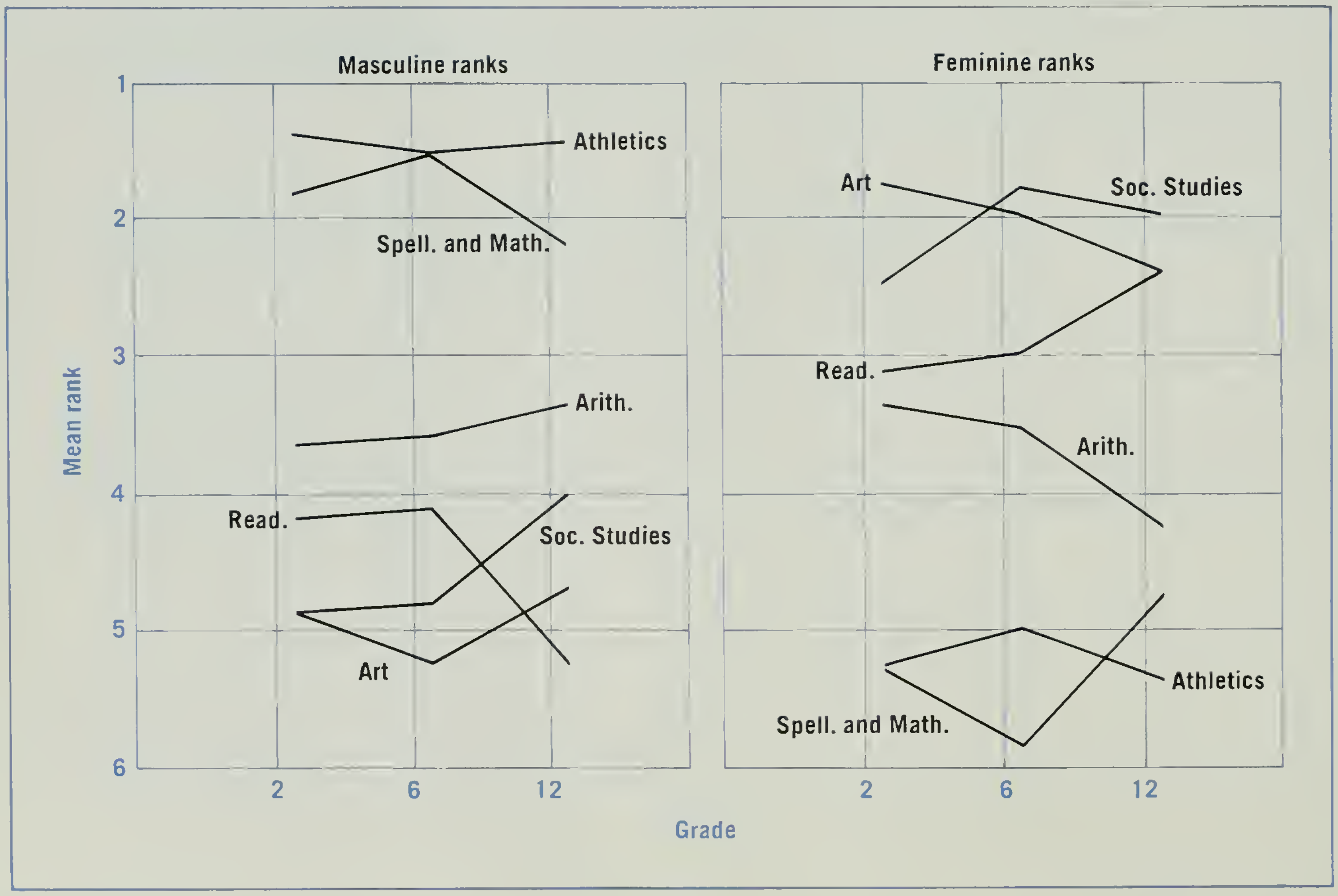


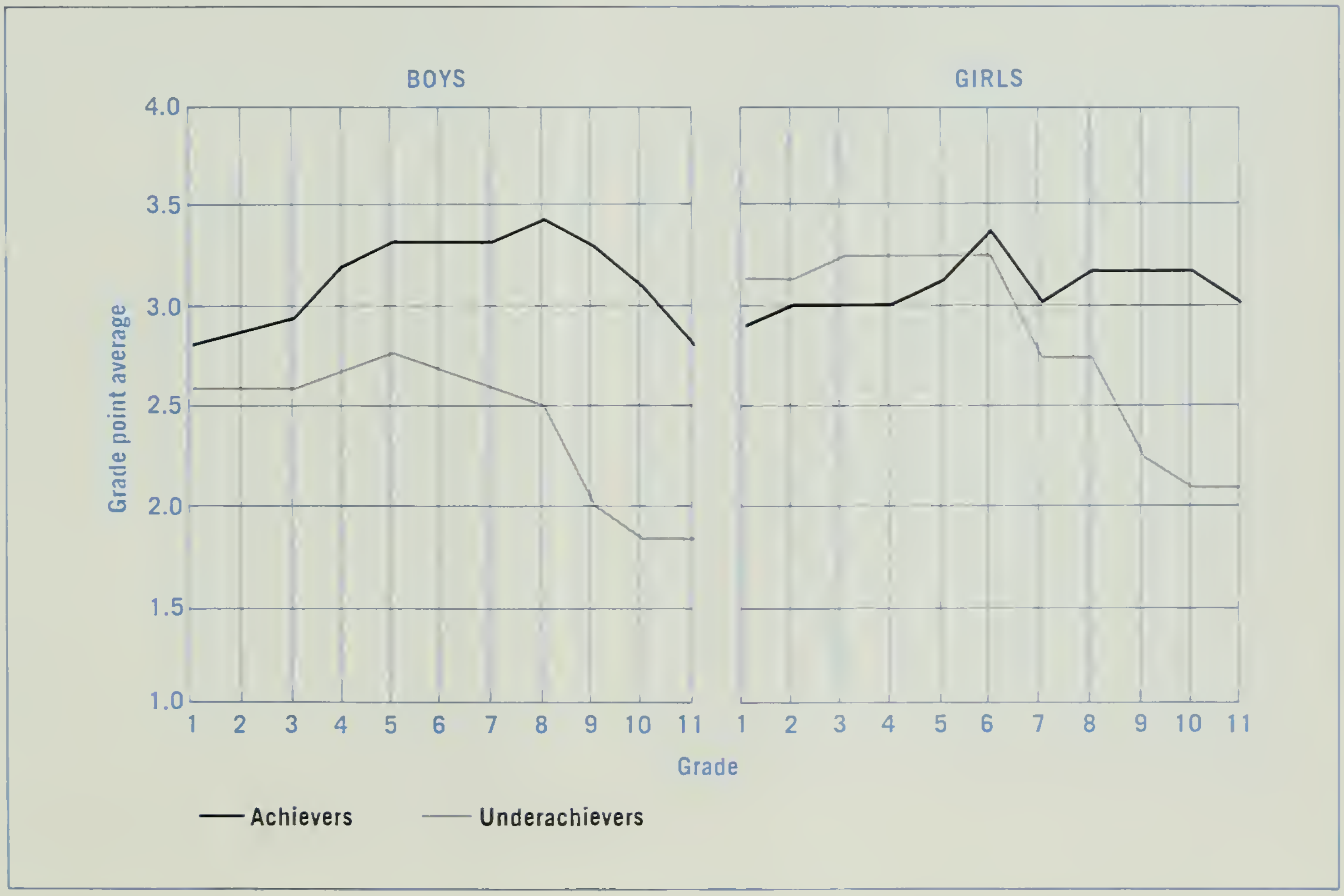
Figure 16-3. How boys and girls rank achievement in different areas of school work and extracurricular activities. (Adapted from A. H. Stein and J. Smithhells, Age and sex differences in children's sex-role standards about achievement, Develpm. Psychol.*, 1969,* **1***, 252-259. Used by permission.)*

below his assessed ability as measured by a standard test of intelligence. Such a student may be considered an "intellectual delinquent." There are two kinds of underachievers: the *long-term* underachiever, who shows over a period of time that he is working below his capacity, and the *situational* underachiever, who works below capacity because of some traumatic experience, such as a transfer to another school, a death in the family, or some other emotion-producing experience. The situational underachiever may become a long-term underachiever, or his underachievement may last only until he adjusts to the situation which has given rise to his underachievement. Some students are *general* underachievers, working below their capacities in all school subjects; others are *specific* underachievers, working below their capacities in certain subjects only.

An *overachiever* is a student whose academic achievement is above his tested ability: He does better work than one would expect. The child may be a long-term overachiever, or his overachievement may develop as a result of some traumatic experience, such as threat of failure. Like underachievement, overachievement may be general or specific. There is evidence that there are more underachievers than overachievers at all educational levels (31, 56, 63, 90).

Causes of Underachievement and Overachievement. Underachievement and overachievement are symbolic of a variety of basic personal and social problems. Very rarely are they the result of poor teaching or lack of educational opportunity alone. Rather, *the cause usually lies within the child himself.* Furthermore, the environments of the home and school, per se, are not directly to blame, though they are, indirectly, at the basis of the trouble because they promote emotional and personality problems which lead to hostility. The

Figure 16-4. The onset of underachievement in boys and girls. (Adapted from M. C. Shaw and J. T. McCuen, The onset of academic underachievement in bright children. J. educ. Psychol., *1960,* **51,** *103-105. Used by permission.)*



child may direct his hostile attitude toward school and toward those who are in charge of his education (40, 58, 90). Figure 16-4 shows how underachievement is often related to age.

The emotional and personality problems that lead to dislike for school usually begin at home, though they are often fostered by the school. If the child comes from an authoritarian home where pressures are placed on him to achieve success in school, if he has been so overprotected at home that he feels inadequate to cope with the school situation, or if his parents' attitudes are negative or indifferent toward education, he is likely to develop an unfavorable attitude toward school. Should his homelife be disturbed by parental quarrels and strife or be broken by death or divorce, or should he feel rejected by one or both parents, he will develop a hostility which will affect his outlook on life and be projected to the school situation.

If academic success is highly valued by parents, by teachers, or by the peer group, the child who feels inadequate or who is hostile because he has not won acceptance may become an overachiever. He accepts the values of those whose approval he craves and tries to gain a secure status by his accomplishments. Thus, it is apparent that *underachievement and overachievement stem from much the same cause, a feeling of insecurity and inadequacy accompanied by hostility.* They are relatively uninfluenced by interest in schoolwork or in the school as an institution. Box 16-8 lists some of the factors responsible for variations in achievement.

Box 16-8

FACTORS RESPONSIBLE FOR VARIATIONS IN ACHIEVEMENT

Sex

In general, boys tend to underachieve and girls to overachieve. Girls are more anxious to conform to adult expectations and less rebellious than boys. Also, academic achievement has more prestige for girls than for boys.

Intelligence

Underachievement is most common among very bright children, while overachievement occurs most frequently among those of average or below-average ability.

Socioeconomic Status

Middle-class parents value education as a stepping-stone to future success, and so they pressure their children to get good grades. This attitude encourages overachievement. Lower-class parents often see little value in education and do not encourage their children to work up to capacity. Such an attitude fosters underachievement. Upper-class parents sometimes encourage underachievement in their children because they do not feel that high grades are essential for vocational or social success.

Effects of Under- and Overachievement. For neither under- nor overachievers is school a happy, relaxed, ego-satisfying experience. It is, instead, accompanied by anxiety and feelings of guilt or shame. The *overachiever* may win parental and teacher approval, but this is overshadowed by a constant fear of failure; by an anxiety that is ever present, though especially strong at the time of tests and examinations; and by the feelings of inadequacy that come from the child's recognition of his intellectual limitations. The overachiever feels guilty if he takes time out to enjoy himself. He feels that he must drive himself to study, while his less anxious classmates play.

Overachievers are usually the least popular members of a class, not only because of their high marks but also because achievement of high marks is possible only when the child develops a powerful drive to succeed. This often makes him nervous, tense, anxious, and highly sensitive to social approval and disapproval—characteristics that militate against peer acceptance. Furthermore, to achieve success, the overachiever must be highly competitive, often playing up to the teacher to win favor or refusing to help a classmate with a school assignment.

When the *underachiever* knows he is working below his potential, he feels guilty and ashamed. His parents and teachers are constantly prodding or punishing him for not doing what he is capable of, and he is made to feel that he is a "slacker." He inevitably develops a dislike for school and everything connected with it. These unfavorable attitudes not only militate against the child's desire to study but also lead to apathy—an "I don't care" attitude—which results in his withdrawal from competition with students who are more eager to achieve academic success. One of the effects of this withdrawal from academic competition is withdrawal from the social group. Many underachievers become unsociable and self-sufficient, developing into voluntary isolates.

Underachievers are also a "morale problem" for schools. Children who dislike school usually verbalize their dislike to their classmates. Their highly emotional attacks on the school, the teachers, and their studies can strongly affect their classmates' morale.

Interest in Vocation

The child's interest in a vocation develops early because his attention is focused on the future by people asking him what he is going to do when he grows up. As he reads books, sees movies and television shows, looks at the comics, and hears people talk about their jobs, he develops an interest in what his future will be like.

Environmental pressures may compel a child to make a decision about his vocation, but he may change it radically later. The choice is greatly influenced by the child's mental development and other interests at the time. Studies of the pattern of vocational choice have shown that the pattern is predictable and is followed by the majority of children (36, 83, 132). This pattern is shown in Box 16-9.

The major part of childhood is spent in the "fantasy-choice" period, and the attitudes the child will have toward different kinds of work and the interest he will have in them are determined during this period. These attitudes, based on fantasy, are often unrealistic. The satisfaction they provide for the child, however, may make it very difficult to change his interest from a chosen vocation for which he is unfitted to one for which he is fitted.

FACTORS INFLUENCING VOCATIONAL CHOICE

The young child's vocational choice is usually based on a whim. The child knows little about what different vocations entail in the way of work, prestige, compensation, and other factors that are important to an adolescent or adult, and he understands very little about his own interests and abilities. So when he is pressed to answer the question, "What are you going to do when you grow up?" he bases his answer on what is important to him *at that time*. (See Figure 16-5.) Under such conditions, it is not surprising that his vocational choice changes when his interests change and that he may make dozens of choices within a year.

The older child's vocational choice is far more likely to be based on an interest that will persist until his physical and mental development progresses enough to permit a more realistic assessment. Many factors influence the child's interest in a particular vocation. The most important are discussed below.

Parental Wishes. The young child usually accepts his parents' plans for his future. The influence of the parents is twofold: First, they emphasize jobs they think desirable, and second, they advise the child to avoid certain kinds of work. If the father dislikes his work, for example or if his job has little prestige, he not only discourages the child from entering his field but often projects his own thwarted aspirations onto his child and encourages him to enter a field with greater prestige. As a result of these parental attitudes, the range of vocational choice may be greatly limited for the child, and he may develop negative attitudes toward the kind of work for which he is best suited.

Prestige Value of Occupation. Knowing that certain occupations carry prestige, the child is encouraged to aspire to these occupations—to the "right" jobs—regardless of his interest or ability. Parents who consider social status and prestige more important than interest often support the child in his aspirations, making personal sacrifices to enable him to get the necessary education and steering him away from menial or blue-collar jobs.

Admired People. Important as parents are in determining what vocational interests and aspirations will

Box 16-9

PATTERN OF VOCATIONAL CHOICE

Period of Fantasy Choices

This period lasts up to the age of 11 or 12 years. Vocational aspirations are indiscriminate and unreal. The child is not governed by such vocational realities as ability, training, temperament, or job availability, but by his interests *at that time.*

Period of Tentative Choices

During this period, which lasts from the age of 11 or 12 to the end of high school, vocational preferences are based, first, on likes and dislikes or interests, then on aptitudes and capacities, and still later on personal values and ideals.

Period of Realistic Choices

This period begins after the age of 17 and extends to retirement. The individual takes into consideration occupational opportunities, prestige, compensation, and other realities in addition to personal likes or dislikes and wishes.

be, the child is also greatly influenced by *anyone he admires*—a teacher, a relative, a neighbor, or a popular hero from the military, sports, or entertainment world. A child who belongs to a gang wants to do what his friends want to do; a child who hero-worships an older sibling wants to do what the sibling does.

Abilities and Interests. The child's physical and intellectual abilities, his personality, and his interests all play some role in determining his vocational choice. If the child has a strong interest in some school subject or in an outside activity, such as sports, he will want to incorporate this interest into the choice of his adult vocation. Children with high IQ scores usually choose the higher occupations or professions, while those with lower intellectual ratings are more likely to choose trades, skilled labor, and clerical work.

The child's personality is just as important as his intelligence in determining his vocational interest. Unadventuresome children, it has been found, want "safe jobs," while those who are more aggressive and daring want "exciting jobs" (22).

Sex Appropriateness. At an early age, children discover that certain lines of work are considered appropriate for men and others for women. Boys rarely aspire to "feminine" vocations; not only do they want to go into the traditional masculine fields, but they put great stress on a "good job." For them, work means not just an income but a chance for upward mobility.

Since girls accept the culturally approved attitude toward working, they generally choose vocations requiring little preparation beyond high school or college. Furthermore, since they want their brief working careers to be pleasant, they choose occupations that provide easy hours, an opportunity for companionship, and security from job loss.

Desire for Independence. Each year the child becomes more frustrated by adult restrictions and more anxious for independence. His resentments against

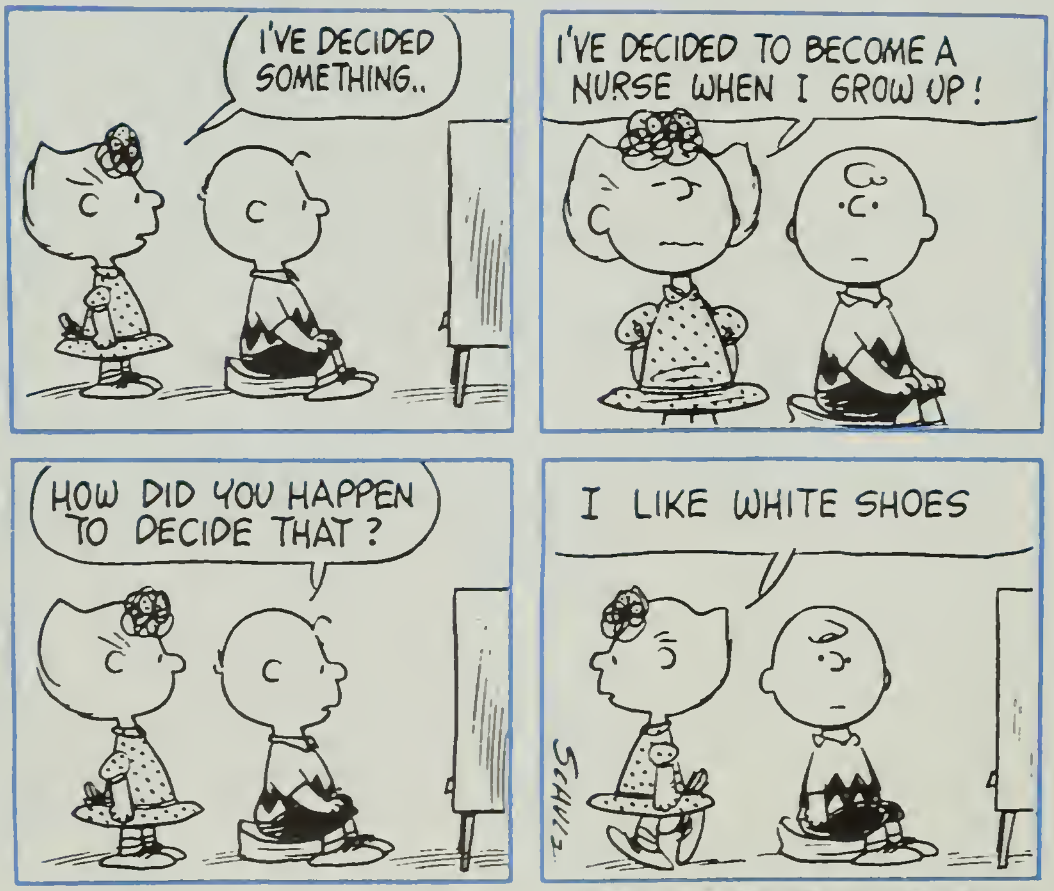

I'VE DECIDED SOMETHING..
I'VE DECIDED TO BECOME A NURSE WHEN I GROW UP!
HOW DID YOU HAPPEN TO DECIDE THAT?
I LIKE WHITE SHOES
SCHULZ

Figure 16-5. The child's vocational choice is based on what is important to him at that time. (*Adapted from Charles Schulz, United Feature Syndicate, Inc., 1970. Used by permission.*)

Drawing by Charles Schulz ©1968 United Feature Syndicate, Inc.

adult domination make him want to "do as he pleases" and not be "bossed." Under such conditions, the desire for independence plays an important role in his vocational thinking.

Cultural Stereotypes. In the development of vocational interests, many children are influenced by cultural stereotypes. The unfavorable stereotype of the teacher, for example, makes many girls decide against a career in teaching. Similarly, the stereotype of a scientist as an "unsocial" person causes many boys and girls to steer away from a career in the sciences, even though their interests and abilities may fit them admirably for such a career.

Personal Experiences. Because of our strict child labor laws, few children in the American culture have an opportunity for firsthand experience with the vocational world. However, as childhood draws to a close, some get experience in after-school, weekend, or vacation jobs as newspaper boys, delivery boys for neighborhood grocery stores, or baby-sitters.

Their firsthand experience may come from close personal contacts with a person in a particular field. A study of children's concepts of doctors, concepts based on visits to doctors' offices or on home calls, has reported that these concepts vary greatly, depending on the kind of experience the children had. When a child's concept is favorable, there is a far greater chance of interest in medicine as a future career than when his concept of doctors is unfavorable (125).

IMPORTANCE OF VOCATIONAL CHOICE

Emphasis on the future is likely to force a vocational decision on a child before he is able to make a wise choice. Early choice also puts a ceiling on the individual's aspirations and limits the range of his interests.

Making a vocational choice that is out of line with one's capacities is equally damaging. The child who aspires beyond his capacities later feels frustrated when he cannot reach the goal he set for himself. He also feels guilty when he realizes that his parents' sacrifices will not be repaid by his vocational success. Furthermore, the chances are that he will never be really satisfied with the kind of work he is able to do; he will always remember that he or his parents aspired to something more prestigious.

Going into a job that is below one's capacity is also unsatisfying. The bright child may be forced into such a vocational choice by peer pressure. If his less-bright friends put high value on getting a job as soon as they complete high school, he may decide to go to work instead of going to college. The temporary satisfaction he derives from earning money—and gaining independence—will soon be overshadowed by the realization that the only work he can do with his limited education bores him. Popular children are most in danger of making this mistake; to retain their popularity, they must do what everyone else does.

One of the most serious aspects of early vocational choice is the strong positive attitudes children develop toward certain kinds of work and the equally strong negative attitudes they develop toward others. If the child constantly hears his father complain about his work and if he is warned against it and told the advantages of other lines, he will develop such strong likes and dislikes that his decisions about his own future will be too biased to guide him into the type of work he is capable of doing.

IMPORTANCE OF EARLY VOCATIONAL INQUIRY

With the very large number of choices for a career available to Americans today—a number estimated at 21,741 by the 1970 edition of *Dictionary of Occupational Titles*—it has become a recognized practice in both public and private junior and senior high schools to give students vocational guidance. Until very recently, however, little thought was given to the need for vocational counseling at the elementary school level. It was felt that, since children are required by law to remain in school for several years beyond the elementary level, they could easily receive their vocational guidance in junior or senior high school or even in college.

Gradually, educators have recognized that vocational attitudes are formed long before children reach the age when guidance is customarily given. It is also known that these attitudes tend to persist and to lead to wrong individual choices. It has now become apparent that one way to prevent vocational misfits and to forestall vocational turnover, which is costly to all concerned, is to introduce some form of vocational guidance earlier in the child's school career.

While this is, at the present time, far from a universal trend and is still in the experimental stage, a beginning has been made. This approach is a radical departure from tradition, and the kind of vocational guidance given is quite unlike that provided at the high school or college level. Instead of advising students about the lines of work for which their abilities and temperaments are best suited and then advising them how to go about preparing for a career, guidance at the elementary school level is "vocational inquiry."

The purpose of vocational inquiry is to acquaint children with the different kinds of work available and what each kind requires in the way of ability, training, and temperament. Whenever possible, children are given direct exposure to the world of work through visits to places where people are on the job.

As it is impossible, at any age level, to acquaint people with *all* the kinds of work available and the requirements for successful achievement in them, the trend at the elementary school level is to acquaint children with certain "job families." The aim is to give children a general idea of many lines of work and of the abilities needed to carry them out successfully. When the child is introduced to jobs in the "community family" of vocations, for example, he is given information about the roles played by those whose job is to feed people (milkman and grocer), to protect people (fireman and policeman), to provide transportation (bus or cab driver), and to provide communication (postman and newspaper printer) (6).

Time will be needed to determine whether vocational inquiry is the best approach to vocational guidance. Its success or failure can be determined only by long-range study of the attitudes children develop toward different vocations, their willingness to enter vocations suited to their abilities, and the satisfaction they derive from their vocational choice.

Highlights of Chapter 16

1. Interests and whims are alike in that both are learned motives that drive a person to act. They differ in that interests are persistent, while whims are temporary.

2. It is possible to discover what a child's interests are by observing his activities and by studying his questions, what he talks about, what he reads and draws, and what his wishes are.

3. Interests are developed in many ways, but most commonly by trial-and-error, identification, and guided learning.

4. Children's interests parallel their physical and mental development, they depend on readiness and opportunities to learn, they are affected by environmental and personal limitations and by cultural influences, and they are emotionally weighted and egocentric in nature.

5. Children's interests in the human body are concentrated mainly on how it functions and how male and female bodies differ.

6. Interest in appearance in childhood is low except for interest in looking sex appropriate.

7. Interest in clothes develops because clothes satisfy children's needs for autonomy, attention, individuality, and identification with the peer group, the desire to appear older, and the desire to camouflage features that make one different and conspicuous.

8. Both lack of interest and obsessive interest in clothes are indicative of poor personal and social adjustment.

9. The child's interest in his name, his nickname, and his pet name is markedly influenced by social reactions to them.

10. Status symbols, especially material possessions, are of interest to the child because they help to enhance his acceptance in the peer group.

11. Early childhood interest in religion is concentrated on religious practices, while interest in late childhood is concentrated on religious beliefs based on concepts developed in the child's early religious experiences.

12. Children's interest in sex, which reaches a peak during puberty, is shown by questions about sex, exploration of the sex organs, homosexual play, and masturbation.

13. Attitudes toward sex, formed as a result of the way childish curiosity about sex is satisfied, determines whether the child's interest in sex will be healthy or unhealthy.

14. Interest in school, which normally decreases as childhood progresses, is markedly influenced by early school experiences; parental, sibling, and peer attitudes; peer acceptance; degree of academic success; attitudes toward work; teacher-pupil relationships; the emotional climate of the school; and the sex appropriateness of school subjects.

15. Lack of interest in school often leads to truancy, school phobia, and underachievement.

16. Vocational choice in childhood often results in attitudes that lead to poor vocational adjustment in adult life.

Bibliography

1. Allport, G. W.: *The individual and his religion.* New York: Macmillan, 1950.
2. Amatora, Sister M.: Interests of preadolescent boys and girls. *Genet. Psychol. Monogr.,* 1960, **61**, 77–113.
3. Arthur, B., and M. L. Kenne: Bereavement in childhood. *J. child Psychol. Psychiat.,* 1964, **5**, 37–49.
4. Baird, C. L.: The role of the teacher of six- and seven-year-old children. *Brit. J. educ. Psychol.,* 1968, **38**, 323–324.
5. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders, 1966.
6. Bank, I. M.: Children explore career land through vocational role-models. *Vocat. Guid. Quart.,* 1969, **17**, 284–289.
7. Berecz, J. M.: Phobias of childhood: Etiology and treatment. *Psychol. Bull.,* 1968, **70**, 694–720.
8. Blain, M. J., and M. Ramirez: Increasing sociometric rank, meaningfulness, and discriminability of children's names through reinforcement and interaction. *Child Develpm.,* 1968, **39**, 949–955.
9. Boshier, R.: Attitudes toward self and one's proper names. *J. indiv. Psychol.,* 1968, **24**, 63–66.
10. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row, 1966.
11. Brashear, D. B.: Meeting the opposition: Sex education and community support. *Family Coordinator,* 1971, **20**, 44–48.
12. Brenton, M.: 21,741 choices for a career. *The New York Times,* Oct. 25, 1970.
13. Broderick, C. B.: Sexual behavior among pre-adolescents. *J. soc. Issues,* 1966, **22**, no. 2, 7–21.
14. Brookover, W. B., S. Thomas, and A. Paterson: Self-concept of ability and school achievement. *Sociology of Education,* 1964, **37**, 271–278.
15. Brown, A. W., and R. G. Hunt: Relations between nursery school attendance and teachers' ratings of some aspects of children's adjustment in kindergarten. *Child Develpm.,* 1961, **32**, 585–596.
16. Brown, D. G., and D. B. Lynn: Human sexual development: An outline of components and concepts. *J. Marriage & Family,* 1966, **28**, 155–162.
17. Brown, R. G.: A comparison of the vocational aspirations of paired sixth-grade white and Negro children who attend segregated schools. *J. educ. Res.,* 1965, **58**, 402–404.
18. Calderone, M. S.: Sex education and the roles of school and church. *Ann. Amer. Acad. pol. soc. Sci.,* 1968, **376**, 53–60.
19. Cameron, P.: Note on time spent thinking about sex. *Psychol. Rep.,* 1967, **20**, 741–742.
20. Catton, W. R.: What's in a name? A study of role inertia. *J. Marriage & Family,* 1969, **31**, 15–18.
21. Cheong, G. S. C., and M. V. DeVault: Pupils' perceptions of teachers. *J. educ. Res.,* 1966, **59**, 446–449.
22. Chown, S. M.: Personality factors in the formation of occupational choice. *Brit. J. educ. Psychol.,* 1959, **29**, 23–33.
23. Clarke, J. H.: The image of the teacher. *Brit. J. educ. Psychol.,* 1968, **38**, 280–285.
24. Compton, N. H.: Personal attributes of color and design preferences in clothing fabrics. *J. Psychol.,* 1962, **54**, 191–195.
25. Davis J. A.: Status symbols and the measurement of status perception. *Sociometry,* 1956, **19**, 154–165.
26. DeFleur, M. L., and L. B. DeFleur: The relative contribution of television as a learning source for children's occupational knowledge. *Amer. sociol. Rev.,* 1967, **32**, 777–789.
27. Demarest, R. J., and J. J. Sciarra: *Conception, birth and contraception.* New York: McGraw, 1969.
28. Diedrich, R. C., and P. W. Jackson: Satisfied and dissatisfied students. *Personnel Guid. J.,* 1969, **47**, 641–649.
29. Dreger, R. M.: Spontaneous conversation and story-telling of children in a naturalistic setting. *J. Psychol.,* 1955, **40**, 163–180.
30. Dubbé, M. C.: What parents are not told may hurt. *Family Life Coordinator,* 1965, **14**, 51–118.
31. Dudek, S. Z., and E. P. Lester: The good child facade and chronic underachievement. *Amer. J. Orthopsychiat.,* 1968, **38**, 153–160.
32. Dunkelberger, C. J., and L. E. Tyler: Interest stability and personality traits. *J. counsel. Psychol.,* 1961, **8**, 70–74.
33. Elder, G. H.: Achievement motivation and intelligence in occupational mobility: A longitudinal analysis. *Sociometry,* 1968, **31**, 327–354.
34. Elkind, D.: The child's conception of his religious denomination. The Catholic child. *J. genet. Psychol.,* 1962, **101**, 185–193.
35. Engel, D. E.: Education and identity: The function of questions in religious education. *Relig. Educ.,* 1968, **63**, 371–375.
36. Engel, M., G. Marsden, and S. Woodaman: Orientation to work in children. *Amer. J. Orthopsychiat.,* 1968, **38**, 137–143.
37. Estvan, F. J., and E. W. Estvan: *The child's world: His social perception.* New York: Putnam, 1959.
38. Fitzsimmons, S. J., J. Cheever, E. Leonard, and D. Macunovich: School failures: Now and tomorrow. *Develpm. Psychol.,* 1969, **1**, 135–146.
39. Flanders, N. A., B. M. Morrison, and E. L. Brode: Changes in pupil attitudes during the school year. *J. educ. Psychol.,* 1968, **59**, 334–338.
40. Frandsen, A., and M. Sorenson: Interests as motives in academic achievement. *J. sch. Psychol.,* 1968, **7**, no. 1, 52–56.
41. Gagnon, J. H.: Sexuality and sexual learning in the child. *Psychiatry,* 1965, **28**, 212–228.
42. Gagnon, J. H., and W. Simoen: They're going to learn in the street anyway. *Psychology Today,* July, 1970, pp. 46–47, 71.
43. Gellert, E.: Children's conceptions of the content and function of the human body. *Genet. Psychol. Monogr.,* 1962, **65**, 293–405.
44. Gerbner, G.: Images across cultures: Teachers in mass media fiction and drama. *School Review,* 1966, **74**, 212–230.
45. Gesell, A., F. L. Ilg, and L. B. Ames: *Youth: The years from ten to sixteen.* New York: Harper & Row, 1956.
46. Goldman, R. J.: The application of Piaget's schema of operational thinking to religious story data by

means of the Guttman Scalegram. *Brit. J. educ. Psychol.,* 1965, **35,** 158–170.

47. Graebner, O. E.: Child concepts of God. *Relig. Educ.,* 1964, **59,** 234–241.

48. Granlund, E., and L. Knowles: Child-parent identification and academic underachievement. *J. consult. clin. Psychol.,* 1969, **33,** 495–496.

49. Gregersen, G. F., and R. M. W. Travers: A study of the child's concept of the teacher. *J. educ. Res.,* 1968, **61,** 324–327.

50. Gribbons, W. D., and P. R. Lohnes: Eighth-grade vocational maturity in relation to nine-year career patterns. *J. counsel. Psychol.,* 1969, **16,** 557–562.

51. Gunn, B.: Children's conceptions of occupational prestige. *Personnel Guid. J.,* 1964, **42,** 558–563.

52. Hamid, P. N.: Style of dress as a perceptual cue in impression formation. *Percept. mot. Skills,* 1968, **26,** 904–906.

53. Hanson, J. T.: Ninth grade girls' vocational choices and their parents' occupational level. *Voc. Guid. Quart.,* 1965, **13,** 261–265.

54. Harris, D. B.: How children learn interests. 49th Yearb. *Nat. Soc. Stud. Educ.,* 1950; part 1, 129–135.

55. Hartman, A. A., R. C. Nicolay, and J. Hurley: Unique personal names as a social adjustment factor. *J. soc. Psychol.,* 1968, **75,** 107–110.

56. Heilbrun, A. B., and D. B. Waters: Underachievement as related to perceived maternal child rearing and academic conditions of reinforcement. *Child Develpm.,* 1968, **39,** 913–921.

57. Hill, J. P.: Similarity and accordance between parents and sons in attitudes toward mathematics. *Child Develpm.,* 1967, **38,** 777–791.

58. Hilliard, T., and R. M. Roth: Maternal attitudes and the non-achievement syndrome. *Personnel Guid. J.,* 1969, **47,** 424–428.

59. Hirst, W. E.: Entrance age: A predictor variable for academic success? *Reading Teacher,* 1970, **23,** 547–555.

60. Hirt, M., W. D. Ross, R. Kurtz, and G. C. Gleser: Attitudes to body products among normal subjects. *J abnorm. Psychol.,* 1969, **74,** 486–489.

61. Hunt, L. A.: A developmental study of factors related to children's clothing preferences. *Monogr. Soc. Res. Child Develpm.,* 1959, **24,** no. 3.

62. Jackson, P. W., and H. M. Lahaderne: Scholastic success and attitude toward school in a population of sixth graders. *J. educ. Psychol.,* 1967, **58,** 15–18.

63. Jackson, R. M.: In support of the concept of underachievement. *Personnel Guid. J.* 1968, **47,** 56–62.

64. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N.J.: Prentice-Hall, 1968.

65. Jones, A.: Sexual symbolic response in prepubescent and pubescent children. *J. consult Psychol.,* 1961, **25,** 383–387.

66. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36,** 899–911.

67. Josephina, Sister: A study of some common religious terms for six-year-old children. *Relig. Educ.,* 1961, **56,** 24–25.

68. Kahn, J. H., and J. P. Nursten: School refusal: A comprehensive view of school phobias and other failures of school attendance. *Amer. J. Orthopsychiat.,* 1962, **32,** 707–718.

69. Kaluger, G., and C. J. Kolson: The speaking religious vocabulary of kindergarten children. *Relig. Educ.,* 1963, **58,** 387–389.

70. Kellogg, R. L.: A direct approach to sex-role identification of school related objects. *Psychol. Rep.,* 1969, **24,** 839–841.

71. Kernalegnen, A. P., and N. H. Compton: Body-field perceptual differentiation related to peer perception of attitudes toward clothing. *Percept. mot. Skills,* 1968, **27,** 195–198.

72. Kirkendall, L. A.: Toward a clarification of the concept of male sex drive. *Marriage fam. Living,* 1958, **30,** 367–372.

73. Kowitz, G. T., and E. J. Tigner: Tell me about Santa Claus: A study of concept change. *Elem. Sch. J.,* 1961, **62,** 130–133.

74. Kuhweide, K., H. E. Leuck, and E. Timaeus: Occupational prestige: A cross-cultural comparison. *Percept. mot. Skills,* 1968, **27,** 154.

75. Landis, B. Y.: Religion and youth. In E. Ginzberg (ed.), *The nation's children.* Vol. 2. *Development and education.* New York: Columbia, 1960, pp. 186–206.

76. Lessler, K., and M. T. Erickson: Response to sexual symbols by elementary school children. *J. consult. clin. Psychol.,* 1968, **32,** 473–477.

77. Leventhal, T., and M. Sills: Self-image in school phobia. *Amer. J. Orthopsychiat.,* 1964, **34,** 685–695.

78. Lewis, G. M.: Interpersonal relations and school achievement. *Children,* 1964, **11,** 235–236.

79. Long, D., D. Elkind, and B. Spilka: The child's conception of prayer. *J. scient. Stud. Relig.,* 1967, **6,** 101–109.

80. MacDonald, A. P.: Birth order and religious affiliation. *Develpm. Psychol.,* 1969, **1,** 628.

81. Manwell, E. M., and S. L. Fahs: *Consider the children: How they grow,* rev. ed. Boston: Beacon Press, 1951.

82. Marine, E.: School refusal: Who should intervene? Diagnostic and treatment categories. *J. sch. Psychol.,* 1968–69, **7,** no. 1, 63–70.

83. Marusic, S. S.: Use of occupational drawings to enhance vocational development. *Personnel Guid. J.,* 1969, **47,** 518–520.

84. Masters, W. H., and V. E. Johnson: *Human sexual response.* Boston: Little, Brown, 1965.

85. Mayer, G. R., B. Salzer, and J. H. Cody: The use of punishment in modifying student behavior. *J. spec. Educ.,* 1968, **2,** 323–328.

86. McDavid, J. W., and H. Harari: Stereotyping of names and popularity in grade-school children. *Child Develpm.,* 1966, **37,** 453–459.

87. Milgram, N. A., and W. W. Riedel: Developmental and experiential factors in making wishes. *Child Develpm.,* 1969, **40,** 763–771.

88. Miller, G. W.: Factors in school achievement and social class. *J. educ. Psychol.,* 1970, **61,** 260–269.

89. Mitchell, S., and M. Shepherd: The child who dislikes going to school. *Brit. J. educ. Psychol.,* 1967, **37,** 32–40.

90. Morrison, E.: Underachievement among preadolescent boys considered in relationship to passive aggression. *J. educ. Psychol.,* 1969, **60,** 168–173.

91. Mozdzierz, G. J., M. McConville, and H. H. Krauss: Classroom status and perceived performance

in sixth graders. *J. soc. Psychol.*, 1968, **75**, 185-190.

92. Muma, J. R.: Peer evaluation and academic performance. *Personnel Guid. J.*, 1965, **44**, 405-409.

93. Murphy, W. F.: A note on the significance of names. *Psychoanal. Quart.*, 1957, **26**, 91-106.

94. Mussen, P. H., J. J. Conger, and J. Kagan: *Child development and personality*, 3d ed. New York: Harper & Row, 1969.

95. Nash, H.: Recognition of body surface regions. *Genet. Psychol. Monogr.*, 1969, **79**, 297-346.

96. Neidhart, W.: What the Bible means to children and adolescents. *Relig. Educ.*, 1968, **63**, 112-119.

97. Neisser, E. G.: Emotional and social values attached to money. *Marriage fam. Living*, 1960, **22**, 132-139.

98. *New York Times* Report: School gives Chinese children something to be remembered by: New American names. *The New York Times*, Nov. 10, 1964.

99. *New York Times* Report: Once-proud name of Adolf shunned by West Germans. *The New York Times*, Jan. 19, 1969.

100. Orgel, S. Z., and J. Tuckman: Nicknames of institutionalized children. *Amer. J. Orthopsychiat.*, 1935, **5**, 276-285.

101. O'Shea, A. J.: Peer relationships and male academic achievement: A review and suggested clarification. *Personnel Guid. J.*, 1969, **47**, 417-423.

102. Packard, V.: *The status seekers*. New York: Pocket Books, 1961.

103. Peterson, H. A.: Teacher and peer acceptance of four student behavior types. *Calif. J. educ. Res.*, 1968, **19**, 16-27.

104. Pitcher, E. G.: The Bible for young children. *Relig. Educ.*, 1963, **58**, 384-387.

105. Poffenberger, T., and D. Norton: Sex differences in achievement motive in mathematics as related to cultural change. *J. genet. Psychol.*, 1963, **103**, 341-350.

106. Regan, G.: Personality characteristics and attitude to school. *Brit. J. educ. Psychol.*, 1967, **37**, 127-129.

107. Reuben, D. R.: Sex education: Yes, but what kind? *Philadelphia Sunday Bulletin*, Jan. 19, 1971.

108. Ryan, M. S.: *Clothing: A study in human behavior*. New York: Holt, 1966.

109. Schmuck, R.: Some relationships of peer liking patterns in the classroom to pupil attitudes and achievement. *School Review*, 1967, **71**, 337-359.

110. Schwartz, J.: The portrayal of educators in motion pictures: 1950-1958. *J. educ. Sociol.*, 1960, **34**, 82-90.

111. Schwartz, M.S.: A report on sex information knowledge of 87 lower class ninth grade boys. *Family Coordinator*, 1969, **18**, 361-371.

112. Shane, H. G.: Children's interests. *NEA J.*, 1957, **46**, 237-239.

113. Shenker, I.: Caricatures put scientists on pedestal. *The New York Times*, Dec. 12, 1969.

114. Sheppard, D.: Characteristics associated with Christian names. *Brit. J. Psychol.*, 1963, **54**, 167-174.

115. Shipman, G.: The psychodynamics of sex education. *Family Coordinator*, 1968, **17**, 3-12.

116. Simon, M. D.: Body configuration and school readiness. *Child Develpm.*, 1959, **30**, 493-512.

117. Slee, F. W.: The feminine image factor in girls' attitudes to school subjects. *Brit. J. educ. Psychol.*, 1968, **38**, 212-214.

118. Solomon, J. C.: Neuroses of school teachers. *Ment. Hyg., N.Y.*, 1960, **44**, 79-90.

119. Stein, A. H., and J. Smithells: Age and sex differences in children's sex-role standards about achievement. *Develpm. Psychol.*, 1969, **1**, 252-259.

120. Stone, L. J., and J. Church: *Childhood and adolescence*, 2d ed. New York: Random House, 1968.

121. Strong, E. K.: Satisfaction and interests. *Amer. Psychologist*, 1958, **13**, 449-456.

122. Strunk, O.: Attitudes toward one's name and one's self. *J. indiv. Psychol.*, 1958, **14**, 64-67.

123. Thistlewaite, D. L.: Effects of social recognition upon the educational motivation of talented youth. *J. educ. Psychol.*, 1959, **50**, 111-116.

124. Thorndike, R. L.: *The concept of over- and underachievement*. New York: Teachers College, Columbia, 1963.

125. *Time* Report: A child's view of doctors. *Time* Magazine, Sept. 21, 1970, p. 57.

126. Tuckman, J.: Rigidity of social status rankings of occupations. *Personnel Guid. J.*, 1958, **36**, 534-537.

127. Tulkin, S. R.: Race, class, family and school achievement. *J. Pers. soc. Psychol.*, 1968, **9**, 31-37.

128. Tyler, L. E.: The antecedents of two varieties of vocational interests. *Genet. Psychol. Monogr.*, 1964, **70**, 177-227.

129. Very, P. S.: Real and ideal characteristics of the teacher-student relationship. *Percept. mot. Skills*, 1968, **27**, 880-882.

130. Walz, G. and J. Miller: School climates and student behavior: Implications for counselor role. *Personnel Guid. J.*, 1969, **47**, 859-867.

131. Wax, M.: Themes in cosmetics and grooming. *Amer. J. Sociol.*, 1957, **62**, 588-593.

132. Wellington, J. A., and N. Olechowski: Attitudes toward the world of work in elementary school. *Voc. Guid. Quart.*, 1966, **14**, 160-162.

133. Whalen, R. E.: Sexual motivation. *Psychol. Rev.*, 1966, **73**, 151-163.

134. Yamamoto, K., E. C. Thomas, and E. A. Karns: School-related attitudes of middle-school age students. *Amer. educ. Res. J.*, 1969, **6**, 191-206.

135. Yando, R. M., and J. Kagan: The effect of teacher tempo on the child. *Child Develpm.*, 1968, **39**, 27-34.

136. Yee, A. H., and P. J. Runkel: Simplicial structures of middle-class and lower-class pupils' attitudes toward teachers. *Develpm. Psychol.*, 1969, **1**, 646-652.

PAUL MICHAEL—SCULPTURE BY HENRY MOORE

CHAPTER SEVENTEEN Family Relationships

FOR MANY YEARS, psychoanalysts have stressed the importance of early family experiences on the child's behavior and attitudes. According to Freud, for example, neuropathic parents who overprotect the child and smother him in affection awaken in him "a disposition for neurotic diseases" (53). Flügel pointed out that too severe or too careful parents make the child rebellious, not only toward his parents, but toward all adult authority (49). The emphasis on "momism" since the mid-1940s has stressed the psychological damage caused by maternal dominance and overprotection.

More recently, studies of maternal deprivation—where the babies were separated from their mothers and institutionalized—have revealed how important a role early family relationships play in the child's development. While some of the detrimental effects of maternal deprivation may be counteracted if a satisfactory mother substitute is provided, even this partial solution is often not possible, principally because a satisfactory substitute is not always available.

The home—the child's first environment—sets the pattern for his attitudes toward people, things, and life in general. Furthermore, the child identifies with the family members he loves, imitates their behavior, and learns to adjust to life as they adjust. While the pattern established in the home is modified as the child grows older, it is never completely eradicated.

Changes in the American Family Pattern

The dynamics of the American culture have brought about many changes in patterns of family living and have fundamentally affected the status of women and the relationships between men and women, husbands and wives, and parents and children. Of the many changes that have occurred since the turn of the century, those which have had the greatest impact on child development are given in Box 17-1.

REASONS FOR CHANGE IN THE AMERICAN FAMILY PATTERN

The change in the American family pattern may be traced to a number of causes. *First,* as the nation has gradually shifted from a rural to an urban economy, the family has been changed from a closely knit, interdependent unit to a loosely knit unit. *Second,* with the rapid shift from small to large business, the mobility of workers has broken or weakened family ties. *Third,* as the number of people from different countries has grown, the different cultural influences have produced a variety of patterns of family life, not a typically American pattern. *Fourth,* a new philosophy regarding the child's status in the family has resulted in child-centered families as compared with adult-centered families of past generations. *Fifth,* a swing from authoritarian to more permissive child training and from adult control of the child's behavior has placed more responsibility for control on the child himself.

EFFECTS OF CHANGES ON FAMILY RELATIONSHIPS

Changes in the pattern of family living inevitably bring changes in the relationships of different family members. The rapid rate of change in America means that today's children have many experiences which their

Box 17-1

CHANGES IN THE AMERICAN FAMILY PATTERN

- Families are smaller.
- Ties with relatives are weaker and there are fewer contacts with them.
- Less work is done in the home.
- Children spend more time outside the home.
- Recreation has shifted outside the home.
- The major family recreation is television watching.
- More mothers work outside the home.
- Divorce, separation, and remarriage are more common.
- Child-training methods are more democratic.
- Fathers play a greater role in child rearing.
- More training of the child is done in the school.
- Social and vocational mobility has increased.
- The material milieu of the home, in the form of furnishings, has become more important.
- Parents are more ambitious for their children's futures.
- Parents are willing to make more personal sacrifices for their children's education.

parents never had and are often unable or unwilling to understand. Young parents, as a rule, understand their children better than older parents because the smaller the age gap between parent and child, the less change there will have been in cultural values and patterns of living.

Television teaches the child much more about many subjects than his parents could possibly have known at his age. The child learns, for example, how other people live, and this often makes him critical of his parents and the pattern of life in his own home. The child whose parents are foreign-born or newly urbanized encounters more difficulties in this respect than one whose parents feel at home in their present environment.

Child-training methods in America have undergone an almost revolutionary change in the last fifty years, and parents are often confused about the proper way to bring up children. This is in direct contrast to many other cultures, in which family life follows a traditional pattern, with a set, rigid program for child training.

It is also in direct contrast to the *continuous* patterns of child training in cultures which prepare the child for his adult roles by starting with simple learning experiences and progressing to more complex learning experiences of a similar nature as the child grows older. The child brought up by continuous training has few conflicts; he gains a sense of security and feels relatively little tension in family relationships. Continuities in training also give parents greater security in their parental role.

Our training of the child is characterized by *discontinuities* in the sense that the training in childhood has little or no relationship to the pattern of life in adulthood. This kind of training adds to the difficulties the child encounters in his adjustments and increases tension in the family.

That many American parents feel inadequate for their role is apparent in the frequency with which they seek advice from relatives, friends, or child-guidance experts. When parents feel inadequate, the tensions they build up are reflected in the parent-child relationship. Conflicts between parents about the best way to train the child increase family friction and add to the feeling of inadequacy the mother has about her role.

Influence of Family Relationships on Children

In spite of the radical changes that have taken place in the pattern of American family life in recent decades, the family still is, as Clark and Van Sommers have pointed out, the "most significant part of the child's 'social network'" (32). The home is a haven for the child. Bossard and Boll (19) have emphasized what the home means to the child:

> *Home is the place the child comes back to, with his experiences. It is the lair to which he retreats to lick his wounds: the stage to which he returns to parade the glory of his achievements: the refuge he finds in which to brood over his ill treatment, real or fancied. Home, in other words, is the place to which one brings the everyday run of social experience, to sift, to evaluate, to appraise, to understand, or to be twisted, to fester, to be magnified, or ignored, as the case may be.*

Not all members of the family exert equal influence on the child. How much influence a family member will have depends largely upon the emotional relationship between him and the child. Since the *mother* spends more time with the child than the father and shows her affection for the child more openly, she exerts a greater influence than the father. Even though the *father* has less influence than the mother, his influence is still great. An autocratic father can cause maladjustive development in the child as readily as a permissive father whose discipline is ineffectual.

In *sibling* relationships, a child is influenced more by an older sibling of his own sex than by one of the opposite sex because he tends to identify with a member of his own sex.

When *grandparents* or other relatives live in the home, their influence on the child is far greater than when they see him only occasionally. The influence they exert will also be determined by the closeness of the emotional relationship between them and the child.

How the child will react to home influences and how his relationships with different family members will affect him will depend to a large extent upon the child himself—*what kind of individual* he is. The quiet child will react differently from the aggressive child; the introvert will react differently from the extrovert. Furthermore, the influence of family relationships varies according to the child's *age;* the younger the child, the more influence the family has.

Deterioration in Family Relationships

Relationships with people rarely remain static; as people change, their relationships with one another also change. Family relationships tend to change for the worse. This deterioration generally begins during the latter part of the child's first year of life and is readily apparent early in the second year. It is shown by a decrease in parental warmth toward the child and an increase in restrictiveness and punitiveness.

While relationships among family members may improve somewhat when the child first goes to school—whether it is nursery school, kindergarten, or the first grade—they usually do not. Adjusting to school is always accompanied by emotional tension, and this is expressed in an increase in the number of behavior problems or in the intensity and frequency of those which already exist.

As the child spends more and more time with people outside the home, new interests and values give rise to increasing friction with family members. In the closing years of childhood, family relationships steadily deteriorate, reaching a low point as puberty changes occur, and friction becomes the dominant aspect of the relationship pattern.

CAUSES OF DETERIORATION

Deterioration in family relationships is caused by conditions which, to some extent, are controllable. As people change, there must be an adjustment in their relationships, or deterioration will set in. Since children change more than parents, most of the adjustment must be made by parents. When growth and development are most rapid, parental adjustments to the child and his changed needs are especially important if harmonious relationships are to exist.

Deterioration may occur in *any* family relationship, not only that between parent and child. In each relationship the cause or causes of deterioration are predictable.

Parent-Child Relationships. Many parents fail to recognize how rapidly the child outgrows his infantile dependency. Even if they do recognize it, some mothers, for selfish reasons, refuse to adjust to it and thus thwart the child's natural strivings. Whenever a strong need is thwarted—and independence is one of the strongest needs of childhood—it will lead to friction. In commenting on the failure of many parents to recognize and adjust to the changed needs of their children, Bowerman and Kinch (21) have stated:

> *There would appear to be something like a law of perseveration in human relations, according to which we tend to react to another person in the same manner until there is some force operating, such as a status change imposed on the relationship which modifies our perception of the other and the way in which we shall react to them. We would expect, for this reason, that parents tend to hold the same demands and expectations of their children until a change in external circumstances forces them to look at their children from a new perspective. These changes are increase in growth and puberty changes and starting high school or junior high school.*

When children no longer need to depend so much on their parents and are no longer as demonstrative in their affection, consideration, and respect, they often treat their parents in such a way that the parents feel rejected. Even when children are less critical and rebellious than is typical in the American culture of today, their changed behavior cannot fail to contribute to a deterioration in parent-child relationships.

Husband-Wife Relationships. The type of relationship that develops between husband and wife after the arrival of children becomes a very important factor in determining what the relationships with different family members will be. When both husband and wife are pleased with their parental roles, there will be an emotional warmth that will include the children as well as their parents. Should either or both parents, on the other hand, become disenchanted with the parental role, because of radical changes in their lives which they had not anticipated, there will eventually be husband-wife friction: the disenchanted parent will become highly critical of the other parent and of the children. When both husband and wife are disenchanted with the parental role, the frictional relationship will be intensified, resulting in a further deterioration in family relationships.

Changes in the Family Pattern. Whenever there is a change in the accustomed pattern of family life, adjustments must be made by *all* family members. Otherwise, the homeostasis of the family will be upset, and trouble will ensue. The arrival of a new baby in the home usually upsets every member of the family. Similarly, the arrival of an elderly relative as a permanent member of the household is always upsetting.

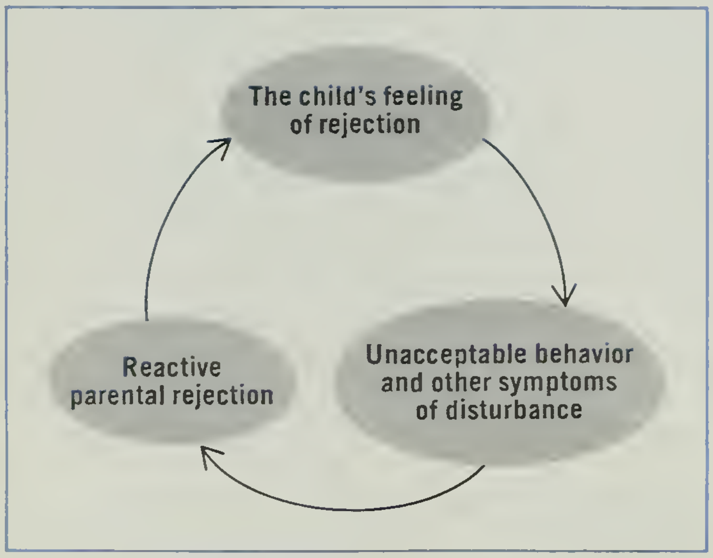
Sibling Relationships. Deterioration in family relationships often spreads to sibling relationships. The older sister who regarded her younger sibling as an "adorable doll" when he was a baby later comes to consider him a "brat" when she is expected to be his unpaid baby-sitter. Similarly, the younger sibling who formerly regarded an older sibling as an idol finds that the idol loses its glamour when the older sibling treats him as a nuisance and refuses to play with him.

Relationships with Relatives. As children grow older, their relationships with their relatives, especially their grandparents, usually change. The doting grandmother who "spoiled" the child when he was a baby may turn into a strict disciplinarian, and the grandfather, who beamed with pride at the sight of his new grandson, may now terrify the young child by his scowls, his threats of a spanking, or his tales about what happens to naughty children after they die.

EFFECTS OF DETERIORATION IN FAMILY RELATIONSHIPS

Changes in family relationships sometimes result in more harmony. Unfortunately, this is the exception rather than the rule. Once poor relationships are established, they tend to persist and grow worse, partly because people develop the *habit of reacting to one another* in a particular way and partly because there is less and less communication between them and thus less understanding.

Figure 17–1. The "vicious cycle" of parent-child relationships. (Adapted from D. Hallowitz and B. Stulberg, The vicious cycle of parent-child relationship breakdown. Soc. Casewk., *1959,* **40**, *268–275. Used by permission.)*


The child's feeling of rejection
Unacceptable behavior and other symptoms of disturbance
Reactive parental rejection

Studies of the way mothers treat their children reveal that treatment during infancy is significantly related to later treatment. Changes usually occur in *quantity* of treatment rather than in *quality;* indulgent parents tend to become more indulgent, and rejective parents more rejective. Consequently, small frictions in early childhood are likely to become major disruptions in late childhood (22, 105, 121).

If a child misinterprets parental behavior and feels that his parents reject him or love him less, he will become anxious, insecure, and rebellious. The parents, not understanding what is behind the child's behavior, feel unappreciated and rejected. In time, they will reject him because of the mutual hostility that is generated. This vicious cycle may begin at any time, but it is most likely to begin early in childhood, when the child finds it difficult to understand the behavior of others unless the reasons for their behavior are spelled out for him in words he can comprehend. Once it begins, it is likely to gain momentum. The "vicious cycle" of parent-child relationships is shown in Figure 17–1.

If one of the people involved in a poor relationship can change his attitude, the relationship may readily improve. This is most likely to occur if there is a period of separation to enable all involved to get a better perspective on the problem. Few children are away from home and parents long enough to gain the therapeutic effect of separation, however; even summer camping is not usually enough to allow parents to change the pattern of their behavior toward the child.

Influence of Parental Attitudes on Family Relationships

Parental attitudes influence the way parents treat their child, and their treatment influences his attitude toward them. Fundamentally, therefore, the parent-child relationship is dependent upon the parents' attitudes. As was stressed in Chapter 4, many parental attitudes are formed before the child is born. Many are *romanticized;* they are based on what parents would *like* their child to be.

Like all attitudes, the attitudes of parents toward their children are a product of learning. Many factors help to determine what attitudes will be learned. The most important of these are given in Box 17–2.

TYPICAL PARENTAL ATTITUDES

Certain fairly universal parental attitudes in the American culture are the products of tradition, of parental teachings, and of experiences in living with children. While parental attitudes are more liberal today than in the past, variations occur in different social and age groups. Young parents, for example, often take their parental responsibilities more lightly than older parents, partly because they do not appreciate them sufficiently, but mainly because they are preoccupied with adjusting to a new role—from an ego-centered pattern of living to a family-centered pattern (19, 33). Figure 17–2 shows what a radical change in the pattern of living new parents must make.

Studies of parental attitudes reveal how varied they are and how greatly they influence parent-child relationships as well as sibling relationships. Those discussed below are the most common and the most influential.

Overprotectiveness. Parental overprotection consists in *excessive physical contact* of the parent and child, *prolongation of infantile care, prevention of the development of self-reliance,* and *excessive parental control.* Overprotective parents allow no competing interest to interfere with their parental duties; they reduce their other interests to a minimum.

One of the most serious effects of overprotectiveness is that it fosters overdependency in the child. *Nervous tendencies,* such as excitability, restlessness, and lack of concentration, are common among overprotected children. Often such children are obese and have an immature look. Their characteristic *personality pattern* is manifested by a low level of ego strength, of aspiration, and of frustration tolerance. They show many withdrawing reactions, lack emotional control, and openly refuse responsibility. They seem to be afraid to grow up; they have no confidence in their abilities; they are easily influenced by, and dependent upon, the group; and they are excessively sensitive to criticism.

Permissiveness. The permissive parent accepts the child's early ideas and ambitions instead of foisting his own upon him; he encourages the child to play with other children; he makes the child feel accepted and strong; and he shows a tolerance for, and understanding of, the child's weaknesses. Permissiveness may go too far and result in indulgence.

Permissiveness affects parents as well as children. Permissive parents report that their lives are disrupted by their children's noisiness, that their privacy is often ignored, and that their attempts to limit or control their children's activities are resisted. If permissiveness is not carried to the extreme of indulgence, however, it will lead to better parent-child relationships and a healthy family life (19, 70, 123).

Children from homes which encourage reasonable freedom have been found to be resourceful, cooperative, self-reliant, and well adjusted in social situations. They show perseverance and can assume responsibilities. If, on the other hand, parents are indulgent, the child has difficulty making social adjustments. He is selfish, demanding, and tyrannical and expects constant attention, affection, and service. He responds to denials of his wishes or to discipline with impatience, outbursts of temper, or assaults.

Rejection. Parental rejection need not necessarily mean overt rejection; it may be characterized either by nonchalance and a general atmosphere of unconcern for the child's welfare or by active dominance, excessive demands, and conspicuous hostility. Frequently, in rejection, the impression is created that the parent is overprotective.

Parental rejection jeopardizes normal security feelings, undermines the child's self-esteem, and

Box 17–2

FACTORS INFLUENCING PARENTAL ATTITUDES

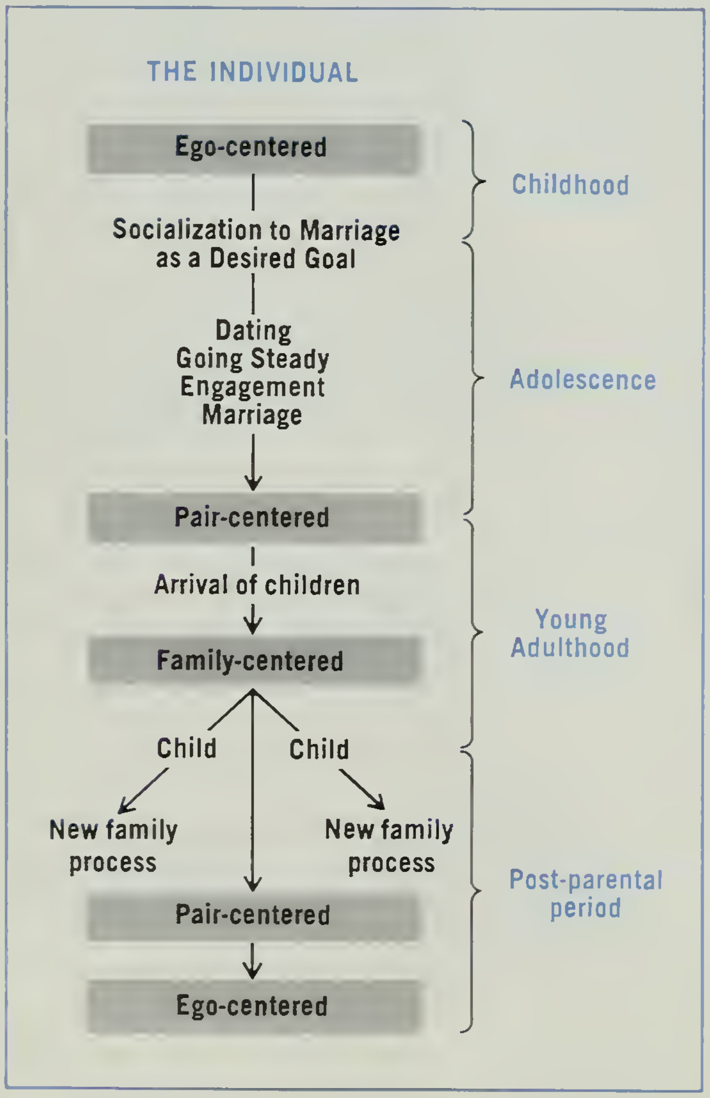
- Cultural values about the best way to treat children
- Personality adjustment of parent
- Satisfaction with parental role
- Feeling of adequacy for parental role
- Marital adjustments and marital happiness
- Parental satisfaction with sex, number, and characteristics of children
- Parental willingness to make personal and economic sacrifices for children
- Parents' reason for having a child, whether to hold together a faltering marriage or to enjoy the child's companionship

induces feelings of helplessness and frustration, which can permanently disable the child in his adjustment to life. Among young children who feel rejected, enuresis, feeding difficulties, nail-biting, and other nervous mannerisms are common. As children grow older, antisocial behavior is common—aggression; cruelty; lying; stealing; swearing; seeking attention, praise, and unnecessary help; and showing off (11, 105).

Acceptance. Parental acceptance is characterized by a keen interest in, and love for, the child. The accepting parent not only wants the child—and in many cases planned for him—but also does not find child care a trying or difficult job. The accepting parent insists on the importance of the child in the home and develops a warm emotional relationship with him.

Parental acceptance is expressed in different ways, depending upon the emotional maturity of the parents. Emotionally mature parents aim at the development of an independent individual and do all they can to achieve this goal. Emotionally immature parents, by contrast, are neurotically attached to their child and try to mold him to suit their own standards. The accepted child is generally better socialized, cooperative, friendly, loyal, emotionally stable, and cheerful.

Figure 17–2. Adults must make a radical change in the pattern of living as they go from an ego-centered childhood to parenthood. (Adapted from S. Clavan. The family process: A sociological model, Family Coordinator. *1968,* 17, *312–317. Used by permission.)*



Domination. The child who is dominated by one or both parents is honest, polite, and careful, but he is also likely to be shy, docile, self-conscious, submissive, and sensitive. He feels inadequate, inferior, confused, bewildered, and inhibited. He is easily led and dominated by his family but not by his peers. As he grows older, he is likely to feel cheated, to be afraid that others will cheat him, and to develop a "sucker complex—a constant fear that others will impose on him or take advantage of him."

Submission to Child. Just the opposite of the dominating parents are the submissive ones, who permit their children to dominate the home. If possible, the child's every wish is gratified, even against the parents' better judgment. The child bosses his parents and treats them with little or no respect.

When parents permit themselves to be dominated by the child, he often becomes disobedient and irresponsible. He defies authority and is unmanageable, aggressive, stubborn, antagonistic, and careless. At the same time, he is independent and self-confident. Frequently he has an exaggerated opinion of himself and is uninhibited in his boasting.

Favoritism. In spite of the typical claim by a parent that he "loves all his children equally," his actions are not always so convincing to his children. The child who perceives that he is the favorite learns that he can do and say things that the less favored siblings would probably be punished for. The child who is not the favorite likewise perceives his status and resents the privileges given to the favorite. The favored child shows a great desire to please the parent, while his siblings become hostile and rebellious.

Certain children are more likely to be parental favorites than others. The sex of the child influences the pattern of parental behavior from the moment of the child's birth. While mothers in the higher socioeconomic groups are reported to be more warm and accepting than mothers in the lower socioeconomic groups, all mothers give preferential treatment to boys (12).

A child who is bright, who does good work in school, who is popular, and who is ambitious for future achievement is likely to become a parental favorite; the more successful the child, the more willing the parent is to make sacrifices for him, even if this entails slighting some of the other siblings. At the opposite extreme, children who are handicapped, either physically or mentally, usually receive more parental attention and affection, and their siblings conclude that they are the "pets."

Parental Ambitions. Often, without taking into consideration the child's abilities or interests, overambitious parents strive to have the child satisfy thwarted ambitions in their own lives. Almost all parents measure their child's achievements against some ideal.

When children are young, parental ambitions usually are concentrated on the child's development of autonomous behavior. The more parents expect their children to become autonomous and the more they encourage and train them for this, the more autonomous they will become. As children grow older, parental ambitions include educational, social, athletic, and, by adulthood, financial and marital success.

The child is well aware of what his parents expect of him. When he does not live up to their expectations, he feels inadequate and becomes quarrelsome, disobedient, irresponsible, and resentful. As a result of such attitudes, he frequently does poor work in school or engages in fantasy and daydreaming. As Rand et al. (112) have pointed out:

> *Trouble arises when the parental wish becomes selfish. When the major wish is gratification of the parental ego or a desire to live again one's own life through the child, parents rob the child of individuality and force the development of interests that are not native or dwarf capacities that should be dominant.*

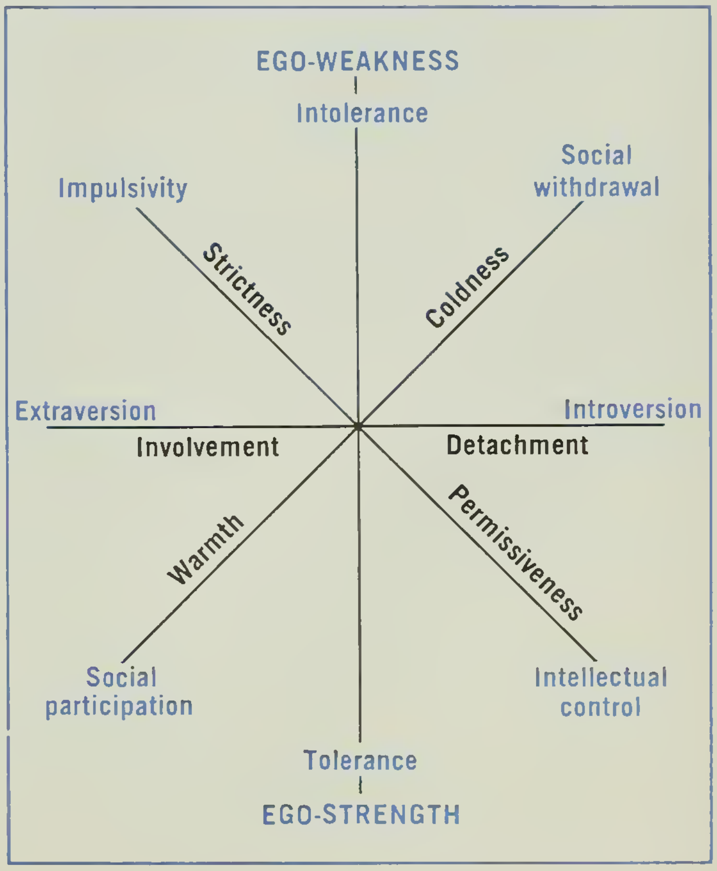
IMPORTANCE OF PARENTAL ATTITUDES

Parental attitudes have a strong impact not only on family relationships but also on the attitudes and behavior of children. Most of those who become successful as they grow older come from homes where parental attitudes toward them were favorable and where a wholesome relationship existed between them and their parents. Such a relationship will produce happy, friendly children who are appealing to others, relatively free from anxieties, and constructive, interdependent members of the group.

Unsuccessful children, by contrast, are usually the product of unfavorable parent-child relationships. Children who are deprived of attention and affection from parents are hungry for affection; they are afraid of being left out. Furthermore, they are *overwilling* to please and to do things for others. All this is a form of compensation and an attempt to buy affection at any cost.

Figure 17–3 shows some of the ways in which parental attitudes influence the child's personality. Parents who are perceived as inhibiting and demanding, for example, produce impulsive children. Warm, supportive, affective parents produce buoyant, spontaneous, gregarious children; and cold, indifferent parents produce gloomy, guilty, seclusive, socially withdrawn children. Most important of all is the degree of parental tolerance toward the child and his behavior. The more tolerant the parent, the greater the child's ego strength.

Figure 17–3. Relationship between perceived parental behavior and the child's personality. (Adapted from P. E. Slater. Parental behavior and the personality of the child, J. genet. Psychol., *1962,* **101**, *53–68. Used by permission.)*



Influence of Child-training Methods on Family Relationships

Whether parents use authoritarian, permissive, or democratic child-training methods will depend partly on their own upbringing and partly on what they have found, from personal experience or the experience of their friends, will produce the results they desire in their own children. This subject was discussed in detail in Chapter 15.

The parent-child relationship is also greatly influenced by the way children perceive the training they receive and the interpretation they place on the parents' motivation for punishment. The more authoritarian the child training, the more resentful the child and the more likely he is to be defiant and willfully disobedient. Defiant behavior contributes heavily to the characteristic deterioration of parent-child relationships as the child grows older.

If children feel that their parents do not agree on the proper method of training or disciplining, they begin to lose respect for their parents. If the mother is blamed by the father for not bringing up the children properly, children have less respect for the mother, but may also resent the father's criticism of the mother.

Although sibling relationships are often strained, siblings generally rally to the defense of a sibling who they feel has been unfairly treated, and they put up a united front against the offending parent. This, too, threatens good family relationships.

Influence of Family Size on Family Relationships

The family may be of any size, ranging from husband and wife to any number of relatives. The *nuclear* family—composed of husband and wife and their children—has fewer members than the *elongated* family—composed of the nuclear family plus relatives.

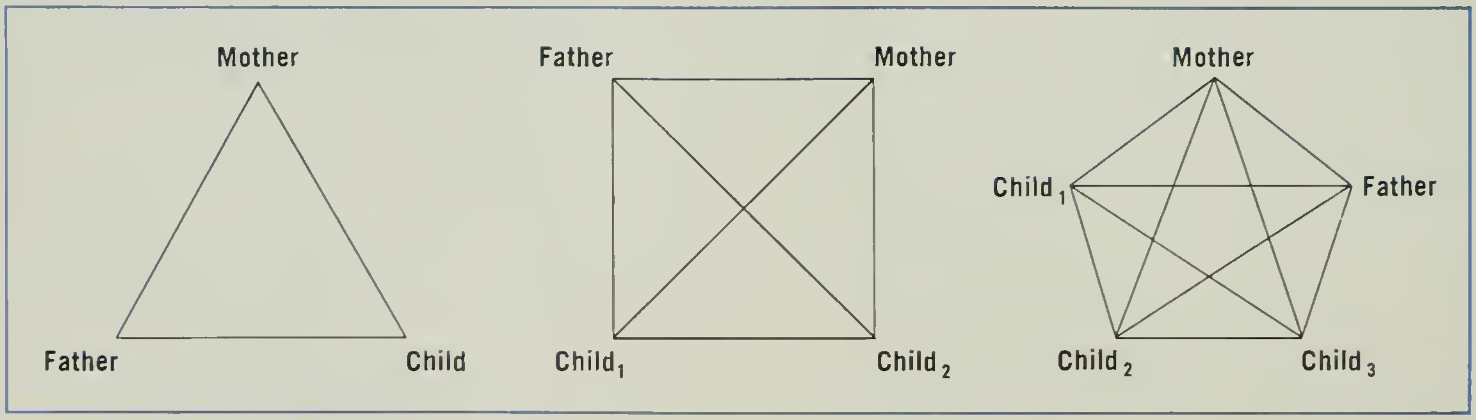
The typical American family of today, especially in urban and suburban areas, is the nuclear family. It is assumed that this kind of family unit is better for the child's development and that nuclear family relationships are healthier than those of elongated families. It is also assumed that family relationships are better in small families than in large families. To determine the validity of these assumptions, one must examine the effects of different family sizes and compositions on family relationships and the reasons for these influences.

WHY FAMILY SIZE INFLUENCES FAMILY RELATIONSHIPS

Family size, per se, is not responsible for the kinds of relationships that develop among family members. Instead, they depend upon a number of factors, four of which are especially important.

First, the number of interactional systems in a family must be considered. To determine how many interactional systems there will be in a given family, Bossard and Boll (19) have suggested the formula:

Figure 17–4. Family relationships in different-sized families. Note that the number of interactional systems in the family increases with the addition of each new family member. In the one-child family, for example, there are only three interactional systems, whereas in the three-child family there are ten such systems.



$$\boxed{X = \frac{Y^2 - Y}{2}}$$

In this formula, X is the number of interpersonal relationships and Y is the number of persons in the family.

A specific example will serve to show how much more complex the interactional systems become with the arrival of each new family member. At first, there are two family members, husband and wife. There is 1 interactional system. With the arrival of the first baby, there are 3 interactional systems. When a new sibling arrives, there will be 6. Then, if there is another baby, making three children, there will be 10. Should the grandmother come to live with the family, the number of interactional systems will jump to 15. This is shown in Figure 17–4.

Each family member has his own interests, needs, and aspirations, and so each makes different demands on every other family member. This often causes friction and leads to an unhealthy emotional climate. When the mother's demands on the child are different from those of the father, for example, or when mother and father use conflicting disciplinary techniques, the child is at a loss to know which parent he should obey or give his allegiance to. If he obeys one parent, there is likely to be friction with the other and friction between the parents.

The larger the family, the greater the number of interactional systems and, normally, the greater the friction in the home. However, friction is often counteracted by the authoritarian discipline of the parents. To avoid the unhealthy home climate that friction gives rise to and to enable each family member to live in harmony with other family members, parents of large families more often use authoritarian child-training methods than do parents of smaller ones (19, 32).

Second, the composition of the family affects the relationships. When the family is composed of more female than male members, as is likely to be true in elongated families, friction tends to be greater. Females are in the home more than males and, as a result, have closer and more continuous relationships with one another—a condition that leads to friction.

Every family is composed of individuals of different ages, and each member will have interests related to his own developmental level. The wider the age range the greater the difference in interests and values, and the greater the possibility of friction. This is especially noted in families which include grandparents or overage parents.

In many families, relatives, roomers, or domestic help become a temporary or permanent part of the family group. Their effect on family relationships will depend on whether their presence is temporary or permanent and on what their relationship with the child is. A grandmother who visits the home infrequently is less likely to cause a frictional relationship within the family than is the grandmother who lives in the home.

Third, family relationships are affected by parental attitudes toward family size. Parents who want a large family and have such a family will create a favorable emotional climate in the home because they are happy in their parental roles and willing to make the personal and financial sacrifices demanded by a large family. When, on the other hand, parents wanted a small family, but have a large one, their attitudes toward *all* their children will tend to be unhealthy. They will resent having to make sacrifices in time, effort, and money, and they will often blame each other for the larger-than-hoped-for family. Their resentment will lead to poor marital relationships and have unfavorable effects on family relationships.

Fourth, the spacing of the arrival of children affects family relationships, depending on how it coincides with parental desires. Parents may want to have children close together, for example, so that the interruption in the mother's career will be shortened or so that the children will be companionable. If the arrival of children coincides with these desires, parents' attitudes will be favorable.

The financial aspect of the spacing problem is especially important. Freedman and Coombs (52) have written:

> [*Parents*] *who have their children very quickly after marriage find themselves under great economic pressure, particularly if they married at an early age. Opportunities for education or decisions involving present sacrifices for future gains are difficult. They are less able than others to accumulate the goods and assets regarded as desirable by young couples in our society. They are more likely than others to become discouraged at an early point and to lose interest more quickly than others in the competition for economic success.*

INFLUENCE OF DIFFERENT-SIZED FAMILIES ON FAMILY RELATIONSHIPS

It is customary among sociologists and psychologists to divide families into four general categories: the one-child family, the small family, the medium-sized family, and the large family.

In the *one-child family*, the nuclear family consists of one child in addition to the two parents. This kind of family is more likely to become elongated by the addition of boarders or relatives living under the same roof than are families with several children where extra space is less readily available.

The *small family* is one in which there are two or three children; the *medium-sized family* has three, four, or five children; and the *large family* has six or more children. In medium-sized families with three or four children, the pattern approximates that of the small family; when there are five children, it more closely approximates the large family in its effects on family relationships. Small, medium-sized, and large families are more likely to be nuclear than elongated because of the lack of space and money to take care of outsiders.

Each family category is, of necessity, subject to different influences and these will result in different home climates and different kinds of family relationships. Box 17–3 lists the major factors that influence relationships in each size of family (9, 31, 69, 94, 99, 100, 140).

A careful study of the factors that influence family relationships in each family category will reveal that each has some conditions that are likely to lead to good relationships as well as some that are likely to lead to poor relationships. Therefore, it is impossible to say which category is the *best* from the point of view of the effect it has on family relationships; nor is it possible to rank the categories in order of merit. However, it is generally agreed by sociologists who have made extensive studies of the effects of family size that, all things considered, the medium-sized family—especially that with three or four children—is *probably* the best from the point of view of healthy family relationships, while the large family is *probably* the worst.

Influence of Sibling Relationships on Family Relationships

It is common for only children to decide that when they grow up and become parents they will have a large family. Similarly, children who grow up in a large family often try to limit their own families to one or two children.

People discover from their own childhood experiences that sibling disharmony often plays havoc with family relationships. This, of course, is not necessary if parents are in control of the family environment and are able to anticipate trouble and keep friction to a minimum and satisfaction to a maximum.

To understand the deterioration that occurs in family relationships as childhood progresses, one must closely examine one of the most important reasons for that deterioration, namely, poor sibling relationships.

ORDINAL POSITION

In all except one-child families, each child is assigned a role according to the order of his birth and is expected to carry it out. The firstborn girl, for example, becomes "mother's helper" and is regarded as the "dependable one" by the other family members. The firstborn boy is generally expected to help his father with the masculine tasks of the household; should anything happen to the father, he is expected to become the father surrogate, playing the role the father played even to the extent of sacrificing his education to go to work to support the family.

If the child likes the role assigned him, all will be well. The very fact that the role is assigned and not voluntarily selected, however, is likely to lead to friction. The oldest daughter may bitterly resent her role as "mother's helper" and feel that her younger sisters should share some of the responsibilities thrust upon her. This can lead to deterioration in parent-child as well as in sibling relationships.

PARENTAL ATTITUDES

The attitudes of parents toward their children are influenced by how closely the children conform to their desires and expectations in regard to sex, abilities, appearance, and other characteristics. Parental attitudes are also influenced by the children's behavior toward one another and toward the parents.

Firstborn children, as a result of their early training and their close association with their parents, tend to conform more to parental expectations than do later-born children. Thus, parents often show a preference for them. It is often true, as Chittenden et al. have written, that "the first child is brought up; the others grow up" (30). As a result, the firstborn is more mature in behavior, more conforming, and more dependable. Likewise, he often shows a dependency on parents, which encourages him to seek parental companionship more than later-born siblings do.

Box 17–3

FACTORS INFLUENCING FAMILY RELATIONSHIPS IN DIFFERENT-SIZED FAMILIES

One-child Families

- Often smaller than parental desires
- Close parent-child relationship results in child's maturity of behavior, which contributes to good peer relationships
- Overprotection by parents
- Democratic or permissive child training
- Minimum family friction due to absence of sibling jealousy and rivalry
- Parental willingness and ability to give child advantages and status symbols
- Parental pressures for academic, athletic, and social achievement
- Child encouraged to play role of own choosing

Small Families

- Usually planned and, therefore, consistent with parental desires in size and spacing
- Parents able to devote adequate time and attention to each child
- Commonly employ democratic control of child behavior
- Frequent sibling rivalry and jealousy
- Tendency of parents to compare child's achievements with those of siblings
- Parental willingness and ability to give each child equal advantages and status symbols
- Parental pressures for academic, athletic, and social achievement
- Role assignment by parents common

Medium-sized Families

- Usually planned and, therefore, meet parental desires in size and spacing
- Less democratic and more authoritarian control as family size increases
- Role assignments by parents common
- Children often denied outside companionship because they are needed to help at home
- Parental pressures for achievement usually concentrate on firstborn
- Frequent and intense sibling rivalries and jealousies
- Limited parental ability to provide advantages and status symbols
- Tendency of parents to compare child's achievements with those of siblings

Large Families

- Usually unplanned and, therefore, foster parental resentment
- Marital friction due to necessity for personal and financial sacrifices
- Role assignment by parents essential to family harmony and efficiency
- Authoritarian control essential to avoid confusion or anarchy
- Children often denied outside companionship because their help is needed at home or because of lack of money for peer activities
- Sibling rivalry and friction kept to minimum by strict parental control but expressed indirectly in teasing, bullying, and name calling
- Parental inability to give children advantages and status symbols their peers have
- Little parental pressure for achievement except on firstborn
- Little overprotection except for firstborn

Middle children often feel neglected in favor of first and last-born children. They feel that their parents play favorites and they resent their siblings. Such attitudes, whether justified or not, lead to poor family relationships.

AGE DIFFERENCES

The age difference between children influences how the mother treats them. When they are closely spaced, she treats them more rationally, more democratically, and with more understanding, although any difference in treatment becomes less pronounced as the second child reaches school age.

If the age difference between siblings is large, there is an entirely different parent-child relationship with each child. Parents tend to expect the older child to set a good example for the younger, and they criticize him when he fails to do so. The younger child, in turn, is expected to imitate the older and to obey him. These parental expectations contribute to poor sibling relationships.

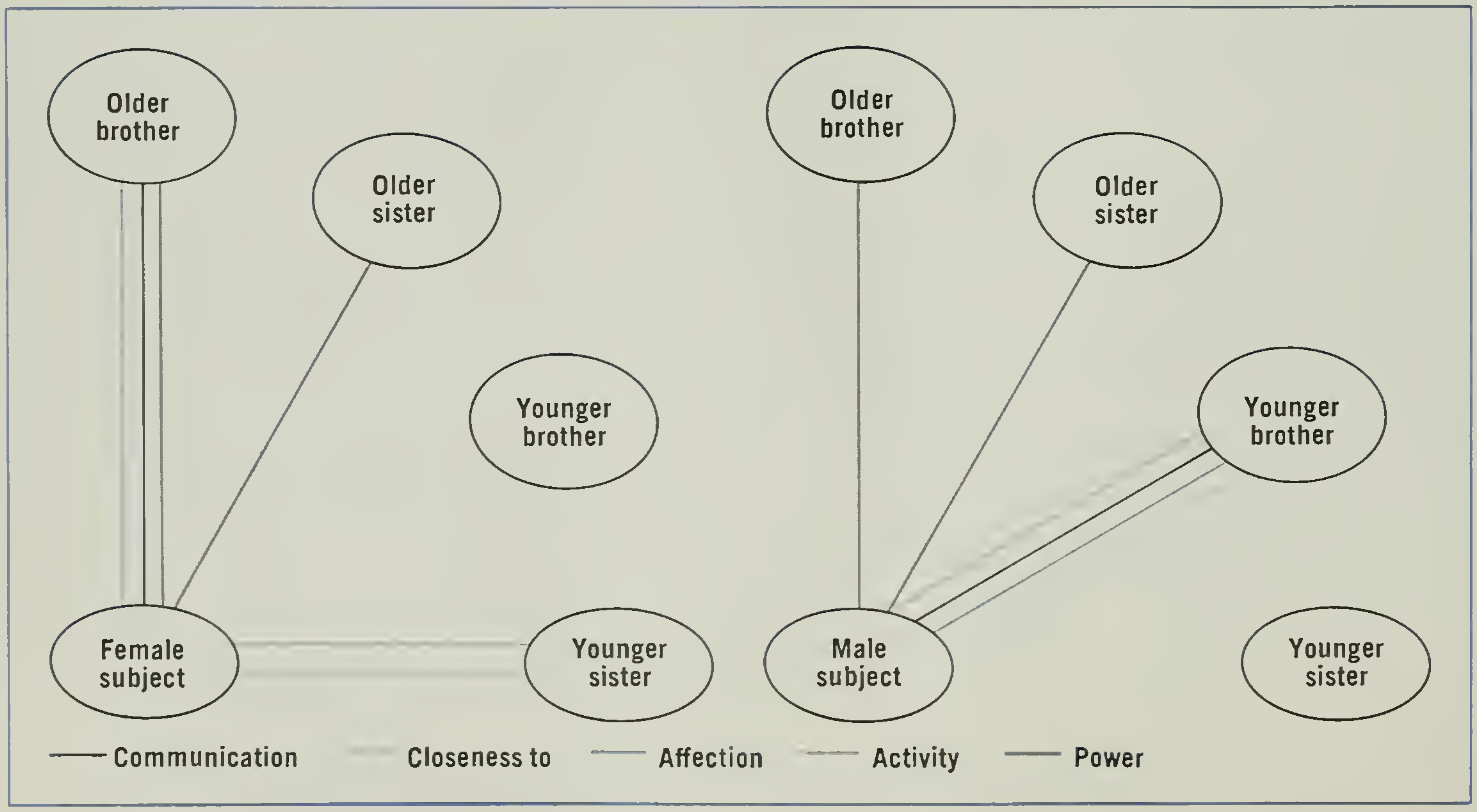
Sibling relationships are best when no age difference exists between siblings, as in the case of twins and other multiple births. In a study of young twins it has been reported that they show more affection for each other and are less aggressive than singletons. While the actual difference between singletons and twins may not be great, it is great enough to result in a better sibling relationship (83).

SEX OF SIBLINGS

Boys and girls react very differently to brothers and to sisters. Sex differences alone, however, are not the determining factor in sibling relationships. Age differences, ordinal position, and attitudes of parents have a marked influence.

In a girl-girl combination, there is more jealousy than in a boy-girl or boy-boy combination. An older sister, for example, is likely to be more aggressive in her relationships with a younger sister than with a younger brother. Boys fight more with their brothers than with their sisters, partly because parents will not permit as much overaggression against sisters

Figure 17–5. Typical relations of older adolescents with siblings of both sexes. (Adapted from A. Yourglich, Explorations in sociological study of sibling systems, Family Life Coordinator, *1964,* **13**, *91–94. Used by permission.)*



as against brothers. When the age difference between siblings is large, whether the children are of the same sex or of opposite sexes, a more affectionate, friendly, and cooperative relationship usually exists. Figure 17–5 shows some characteristic sibling relationships according to the siblings' age and sex.

Throughout the gang age, antagonism between the sexes leads to conflicts between brothers and sisters. The relationship between siblings of the two sexes generally reaches a low point at the time of the gang age.

TYPICAL SIBLING RELATIONSHIPS

There is a more or less universal pattern of sibling relationships among American children of all socioeconomic and intellectual levels. Friction increases as childhood progresses, but at every age, some favorable as well as some unfavorable sibling relationships exist. When the favorable predominate, they contribute to good family relationships, and when the unfavorable predominate, they affect *all* family relationships adversely. See Box 17–4 for a list of important sibling relationships and their effects on the family.

SIGNIFICANCE OF SIBLING RELATIONSHIPS

The frictional relationship between siblings is undoubtedly one of the major causes of deterioration in family harmony. Sibling rivalries and jealousies may be kept from overt expression by threat of punishment, but they will sooner or later erupt and cause trouble. The home environment governed by more democratic practices is likely to be more tempestuous but psychologically healthier because resentments are expressed and the atmosphere cleared.

The serious aspect of sibling friction is that it becomes a pattern of social relationships which the child is likely to carry outside the home and apply to his relationships with the peer group. Habitual quarreling, name calling, bullying, and teasing will not contribute to his chances of acceptance in the peer group. Also, sibling friction weakens the child's motivation to form social relationships with people outside the home. When his relationships with his siblings are not pleasant, he has little motivation to expand his social contacts further.

If poor sibling relationships affected only the children of the family, the situation would not be so unpleasant or the home atmosphere so unhealthy. It is almost impossible, however, for parents to stand on the sidelines and watch their children fight, call names, or tattle; they feel that they must step in and put a stop to the quarreling. By doing so, they usually make matters worse. They are accused of taking sides, showing favoritism, or being unfair.

Box 17–4

HOW SIBLING RELATIONSHIPS AFFECT FAMILY RELATIONSHIPS

Foster Good Family Relationships

- Affection for sibling
- Willingness to play with sibling
- Willingness to share with sibling
- Willingness to help sibling
- Hero-worship of sibling

Foster Poor Family Relationships

- Unwillingness to help sibling
- Unwillingness to share with sibling
- Unwillingness to play with or care for sibling unless forced
- Aggressive attacks on sibling
- Tattling on sibling
- Destruction of sibling's possessions

Influence of Home Setting on Family Relationships

The child's outlook on life, his attitudes and behavior, and his relationships with parents, siblings, and others who live in the home are markedly influenced by the home setting. The home factors discussed below are the most important.

SOCIAL STATUS OF FAMILY

The pattern of family life differs from one social group to another. There are differences in home management; in husband-wife relations; in concepts of the roles of parents, children, and relatives; in family values; in the use of money; in social conformity; in child training and attitudes toward discipline; and in attitudes toward family life.

Middle-class parents, for example, usually regard their children, as Bossard and Boll have said, with "possessive pride and hope" (19). They emphasize social conformity to achieve status, supervise their children closely, and expect their children to avoid any behavior that might bring criticism on the family. In spite of all the parental attention middle-class children receive, the constant pressure to maintain the family status often leads to family friction and a deterioration in family relationships.

When children are old enough to recognize the social status of their families, it has a marked effect on their attitudes toward their parents, especially toward the father, who is the family breadwinner. If their families' social status is at least equal to that of their peers, children are proud of their fathers. When they recognize it to be inferior, they are ashamed of their fathers and hypercritical of them. Upward social mobility, as was explained in Chapter 11, often worsens family relationships. In the new situation, children may be ashamed of parents and relatives whose behavior is different from that of new neighbors or friends. In downward mobility, children resent the father, who is regarded as responsible for the family's downhill slide.

PARENTAL OCCUPATIONS

The increase in the number of working mothers in recent generations has inevitably had an effect on family relationships. This effect, however, is quite different from the effect of the father's work. The distinction will be made more clear in the following paragraphs.

Influence of Father's Occupation. The father's occupation is important to a young child only insofar as it has a direct bearing on the child's welfare. For the older child, however, the father's occupation has a cultural significance in that it affects the child's social prestige.

Elementary school children, it has been reported, stratify people on the basis of jobs and accept the adult attitudes and values concerning different jobs. When a child is ashamed of his father's occupation, because of the level of work done or the kind of clothes demanded by the work, the child's attitude toward his father, his home, and himself will be adversely affected (19, 106).

The father's occupation affects the child indirectly in that it influences the father's standards for the child. From his experiences in work, the father knows what attitudes, skills, and qualities are essential to success. He then tries to foster these in the child. Thus, standards of the occupational world "infect" the home and influence the father's role.

Influence of Mother's Occupation. How the mother's occupation affects the child depends upon the child's age and the provision made for his care. The young child usually feels lonely and unhappy when the mother is away for a major part of the day. Also, he is confused by the different methods of discipline used by the mother and the mother substitute.

The effect of the mother's working on the mother-child relationship depends to a great extent on the child's age at the time the mother starts to work. If she begins working before the child becomes accustomed to spending all his time with her—before any definite relationship has been established—the effect will be minimal. If strong attachments have been formed, however, the child will suffer from maternal deprivation unless a satisfactory mother substitute is provided—a substitute whom the child likes and whose methods of child training will not cause confusion or resentment on the child's part.

How the child feels about his mother's working depends partly upon how seriously her work interferes with his life, partly upon what his friends' mothers do, partly on the stereotype he has built up of "mother," and many other factors. When the mother works, the opportunities for social life and recreation with the family are usually limited, and each child must assume more home duties than otherwise. If everything in the home must be run like clockwork and if the child is constantly pressed to do things in a businesslike way, his reactions to his mother and her work will be less favorable than they would be if she left her principles of efficiency behind in the office.

OUTSIDERS IN THE HOME

Although the nuclear family is the cultural ideal in the United States, many families are extended or elongated. Grandparents or other elderly relatives spend varying lengths of time with the nuclear family, either as guests or as permanent family members.

The three-generation family tends to be a hazardous arrangement.

How "hazardous" a family of three generations is will depend upon a number of conditions, the four most important of which are the parents' attitudes toward the elderly relatives and the necessity of caring for them, the child's attitudes toward them, the role they play in the pattern of family life, and whether the relatives are male or female.

Parental attitudes toward elderly relatives are generally more favorable when the relatives are from the wife's family. The responsibility for taking care of the relatives is generally assumed mainly by the wife, and she is more willing to make personal and financial sacrifices for her relatives than for her husband's, whom she feels should be cared for by the female members of his family.

Even though the *child* is encouraged to respect and feel loyal toward his kinfolk, friction is likely to develop when relatives criticize the child or his parents or try to exert authority over the child. Friction is increased when relatives from the two sides of the family come from different socioeconomic groups. The child, as he becomes aware of social-class differences, tends to identify with the relatives of the higher-class parent and to feel ashamed of those of the lower-class parent.

The *role the elderly relative plays* in the pattern of family life is one of the most important determinants of the effect he will have on family relationships. In Box 17–5 are given the five most common grandparenting roles in the American home today, as described by Neugarten and Weinstein (104). Of these roles, the fun-seeking and reservoir-of-family-wisdom roles will, unquestionably, have the most favorable effects on child-grandparent relationships; the formal, surrogate-parent and distant-figure roles will contribute to deteriorations in family relationships. Of these three, the surrogate-parent role is likely to be the most damaging to family relationships.

Studies show that children's reactions to grandparents change as children grow older. The baby and preschool child like indulgent grandparents and welcome them in the home. The reaction of the school-age child depends on whether the grandparents have any authority over him. If the grandparents are mainly interested in fun-sharing activities, he will like them, but if they are authoritative, he will resent their presence in the home. As childhood draws to a close and the child becomes peer-oriented, his relationships with his grandparents will deteriorate, as do his relationships with his parents (71, 78, 79, 104).

The most hazardous three-generation household, as far as family relationships are concerned, is the one in which the elderly relatives are *female*. Having a maternal grandmother in the home, for example, often creates a situation that is unsatisfactory for the father as well as the children. The father may withdraw from family activities, while the mother must assume an extra burden. Friction between husband and wife will further damage the emotional climate of the home. Children suffer because of the contradictory demands made on them by the mother and the grandmother.

Guests in the home provide the child a new social perspective from which to assess his parents, the

Box 17–5

COMMON ROLES PLAYED BY GRANDPARENTS

The Formal Role

Grandparents do what they regard as the proper and prescribed things. This role includes giving special treats and gifts and assuming a "hands-off" policy in child training.

The Fun-seeking Role

This role is characterized by an informal relationship in which grandparents enjoy playing with the grandchild.

The Surrogate-parent Role

The grandparent substitutes for the parent and assumes both the care and the discipline of the child. This role is played mainly by grandmothers.

The Reservoir-of-family-wisdom Role

This role, played mainly by grandfathers, concentrates on teaching the child special skills and knowledge. It differs from the traditional patriarchal or matriarchal role which concentrated on control of the child's behavior.

The Distant-figure Role

In this role, grandparents come in contact with the child only on special occasions. The contacts are short, infrequent, and fairly formal.

family status, and the pattern of family living. The child learns new social roles and skills and acquires new interests and new information from listening to what the guests say. He may resent the presence of guests, however. Having guests in the home means extra work for every member of the family; it disrupts the child's plans for play and often creates tension with parents who want the child to make a "good impression."

Outsiders in the home, especially if there are too many or if they stay too long, may affect marital relationships unfavorably. This is most likely when the outsiders are elderly relatives. Visits from mutual friends of the husband and wife may help to dispel the boredom of being tied down by child-care responsibilities and improve marital relationships. By contrast, elderly relatives may cause friction between husband and wife by demanding work of the wife or by being hypercritical of the family's life pattern or child-training methods.

BROKEN HOMES

When the home is broken by separation, divorce, death, or a vocation that necessitates long or frequent absences by the father, the whole pattern of family life is changed. If the break is due to death, the family may have to give up the home and go to live with a grandparent or some other relative. There are usually financial problems when the remaining parent is the mother, and problems of child care when the remaining parent is the father. Should the break be caused by separation, divorce, or desertion, there are the added complications of antagonism between the parents and the shifting of the child from one parent to another. Thus the *type* of broken home will determine what influence it will have on the child, and this, in turn, will affect family relationships.

When the break comes in the child's life is perhaps more important than what caused it. In early childhood, when the child's environment is limited almost exclusively to the home, a break in the accustomed pattern of family life is likely to be especially traumatic; the child becomes insecure and feels as if his whole world were falling apart. To compensate for the loss of emotional satisfaction, the young child usually becomes highly dependent on the remaining parent; this results in immaturity of behavior. Should the break come after the child has reached school age, his interests will have shifted to the peer group and his schoolwork, and thus it will be less damaging than earlier.

Breaks Caused by Death. When a break in the home is caused by death and when the child realizes that the parent will never return, he mourns the loss and transfers his affection to the remaining parent, hoping in this way to regain the security he formerly had. Should the remaining parent be preoccupied with grief and the practical problems a broken home gives rise to, the child may feel rebuffed and unwanted. This will lead to resentments which seriously damage family relationships.

In early life, loss of the mother is more damaging than loss of the father. The young child's care must be turned over to relatives or a paid housekeeper whose child-training techniques may differ radically from those used by the mother and who cannot give the child the attention and affection he formerly received. As the child grows older, loss of the father is often more serious than loss of the mother, especially for a boy. The mother may have to go to work and, with the double burden of homemaking and outside work, she may lack the time or energy to give the child the care he needs. Consequently, he will feel neglected and resentful. If she is unable to provide the recreational opportunities and status symbols the child's peers have, this will add to his resentment. For an older boy, loss of the father means that he has no source of identification, as his friends have, and he resents petticoat rule in the home, as he does in the school.

Should the child lose both parents, the effects are doubly serious. Besides having to accept radical changes in the pattern of his life, the child will have to adjust to the care of another person, often a person unknown to him.

Breaks Caused by Divorce. A home broken by divorce can be more damaging to the child and to family relationships than a home broken by death. Bossard and Boll (19) have suggested seven possible effects a home broken by divorce can have on the child:

> *Conflict is created when the child is attached to both parents; the child carries within himself the continuing awareness of the problem; the child may find restraints placed upon him which were not present when the parents were together; the child must often face the transition from a broken home to a stepchild status; the child may have to shift between two homes and adjust to two home climates; the child may compare his home life with that of children from unbroken homes; and the child may develop new and disturbed points of view toward both parents.*

One of the most serious effects is that divorce makes the child "different" in the eyes of the peer group. If he is asked where the missing parent is, he will be embarrassed and ashamed. Furthermore, he may feel guilty if he enjoys the time he spends with the missing parent or if he would prefer to live with the missing parent instead of with the parent who is taking care of him.

Temporary Breaks. Breaks in the pattern of family life may be only temporary, as when the mother or father is away for relatively short periods. The absence of the father is usually due to a vocation that takes him away from home, while the absence of the mother is usually due to illness which necessitates hospitalization. Such temporary breaks create stressful situations both for the child and for the parent and lead to a deterioration in family relationships. First, the family must adjust to the break, and then it must readjust to being reunited (4, 131).

In a study of children whose fathers were away from home when they were born and during the early part of their lives, it was reported that the children had more behavior problems, had more contacts with close relatives and fewer with other children, made poorer social adjustments outside the home, were more dependent on adults, and had greater feelings of anxiety than children who had grown up in a home where both parents were present. Furthermore, when the fathers returned, adjustment of the pattern of family life became stressful for all and led to many family frictions (4).

Temporary absence of the mother deprives young children of the stable source of care they have been accustomed to and is equally damaging for boys and girls. Among older children, it has been reported, the temporary absence of the father is more damaging for boys than for girls. Chapter 8 has a more complete discussion of deprivation during the mother's temporary absence from the home.

REMARRIAGE

Remarriage is often considered a solution to the problems of the broken home. It brings with it its own problems, however, and necessitates difficult adjustments for all, especially the child. While remarriage may eliminate some of the financial problems of the broken home and thus prevent radical changes in the standard of living of the family, the interpersonal problems created are often so difficult that they counteract the favorable effects. These problems arise partly from the attitudes and behavior of the stepparent, partly from those of the

Box 17–6

FACTORS CONTRIBUTING TO STEPPARENT-CHILD RELATIONSHIPS

Child's Contributions

- Memories of own parent, if dead
- Occasional contacts with real parent, if living
- How well the child knows the stepparent before he or she assumes the role
- How radically child training differs from what the child is accustomed to
- How much affection the child has for and shows the stepparent
- Attitude of the peer group toward the child because he has a stepparent
- Acceptance of the stereotype that *all* stepparents are "wicked"

Stepparent's Contributions

- Reason the stepparent had for assuming role—whether love for child or wanting to marry
- Stepparent's interest in and concern for the child
- Resentment of child's interest in absent real parent, as shown by talking about dead parent or wanting to be with real parent, if alive
- Resentment of the child's lack of appreciation for what the stepparent does or the sacrifices he makes
- Favoritism for own child
- Effect of stepchild on marital relationships

child, and partly from those of the real parent. Some of the child's and the stepparent's contributions to the new family relationship are given in Box 17–6.

Poor stepparent-child relationships inevitably affect the relationship of the parents. This, in turn, affects all family relationships. Unlike in first marriages, the parents have no opportunity to establish a wholesome relationship between themselves *before* the stepparent role is assumed. If there were an interval during which the two parents could be alone together, the strains and stresses brought about by the stepparent-child relationship might more easily be met and, as a result, their impact on the family would be lessened.

In general, the home climate is better when the stepparent is the father. There are two major reasons: *First,* a stepfather's financial contribution to the home makes it possible for the family to live more comfortably than it did when the mother had to live on her alimony or inheritance or had to go out of the home to work. Usually, a stepmother's financial contribution is not this significant. *Second,* the stepfather usually assumes less responsibility for the care of the children than the real father; he limits his contacts mainly to "fun" experiences. A stepmother, on the other hand, usually assumes the child-training and disciplinary role of a real mother.

Many men do not find the role of stepparent satisfying. They resent having to support another man's children and they resent hearing the children express a preference for their real father. In addition, the presence of the stepchildren in the home is an ever-present reminder of the wife's first marriage and her love for the children's father. This arouses jealousies that can be a threat to wholesome marital adjustments.

DEFECTIVE CHILDREN

Family relationships can be damaged by the presence in the home of a child who is either maladjusted or physically or mentally defective. While all young children require more of the parents' time, attention, and energy than older children, the defective child continues to need the parents long after he has reached the age when he should be more independent, and often his need increases as he grows older.

Just as all children normally resent the time and attention parents must give to a younger sibling, so they resent it when their parents continue, year after year, to give proportionally more time to a defective sibling. Even though they may sympathize with the defective sibling and understand why he needs attention, they feel sorry for themselves. This feeling of martyrdom is intensified when they compare themselves with their peers.

In most homes where there is a defective child, heavy expenses are incurred for the care of the child. These may represent medical costs or the costs of providing for outside help when the mother leaves the home for personal or family reasons. Operations and institutionalized care add a further financial burden, which often deprives other children in the family of things they otherwise would be able to have.

Older children are often expected to assume some responsibility for the care of a defective sibling. They resent this even more than the care of a normal younger sibling, because the defective child requires more time and attention and can do little to reciprocate. Instead of showing gratitude, the defective child is likely to complain or to criticize the care he receives.

One of the most serious aspects of having a defective child in the home is that the attitudes of members of the peer group toward such a child, toward his siblings, and toward the family may affect family relationships. Attitudes of peers may range from pity and sympathy to ridicule and scorn. Since children are sensitive to peer attitudes, their own attitudes toward the defective child are affected.

A potential source of strain on family relationships when there is a defective child in the family comes from the parents' attitudes. If the husband feels that the wife, through carelessness or neglect, caused the child's defect, she will bitterly resent it, and this will have a permanent effect on her attitude toward her husband. Should she, on the other hand, feel that the child's defect was due to some genetic defect in her husband's family that was transmitted to the child, this will have an unfavorable effect on her attitude toward him.

Since a physically or mentally defective child can put such a severe strain on family relationships, many parents institutionalize the child. While this reduces many of the stresses in the family environment, it does not eliminate them. Two factors continue to militate against good family relationships: *first,* feelings of guilt or resentment or both on the part of the parents, and *second,* financial burdens which deprive other children of the family of many of the things they otherwise might have and which they resent not having.

A maladjusted child can play havoc with family relationships. Often such a child is a troublemaker in the home. If he is aggressive, he will tease, bully, and tattle and will destroy his siblings' possessions. If he is introverted, he will be self-bound and selfish, making few contributions to family life but expecting others to do things for him which they resent.

ADOPTED CHILDREN

The effect of adoption on family relationships depends largely upon how closely the adopted children conform to parental expectations and how they compare with any real children the parents already have. Parents can control such factors as the sex of adopted children or the number or age, and so they can be satisfied with these aspects of the parent-child relationship. But even when the children's background is carefully investigated by an adoption agency, parents know so little about the hereditary background of the children they adopt that it is difficult to have realistic expectations concerning them. This encourages dream-child concepts, which, as was pointed out in Chapter 4, often lead to disappointment.

Parents of an adopted child face two other potential sources of disappointment. The *first* is the adopted child's attitudes toward the parents. If the child learns from outsiders that he is adopted and that the people he calls his parents are not his real parents, he may develop an obsessive desire to know who his real parents are and to go to live with them. His adopted parents will interpret this as a rejection of them—an interpretation which is damaging to their relationships with the child.

The *second* additional potential source of disappointment to parents comes when their real children outshine the adopted child in appearance, achievements, and affection for them. The parents may regret having adopted a child. Indirectly these feelings will be reflected in a rejectant attitude toward the child, which he senses and reacts to unfavorably.

While sibling relationships are never wholly harmonious, frictional relationships are more common with adopted children. Many real children feel that adopted children are not their siblings and do not belong to the family. They then treat their adopted siblings in much the same way that they treat members of the peer group whom they do not include in their gangs.

It is not uncommon for members of the older generation to disapprove of adoption on the ground that "if God wanted a couple to have children, He would give them children of their own." Although the typical American family of today is a nuclear family, relatives play an important enough part in family relationships for their attitudes to be a source of disturbance. Similarly, attitudes of outsiders cannot be dismissed. At no time are these sources of disturbance greater than in interreligious or interracial adoptions. While members of the family may wholeheartedly accept a child of a different religious or racial background, outsiders often do not. This affects the adopted child as well as his parents and siblings.

On the other hand, adoption can improve family relationships by providing a childless couple with children. It can also provide an only child with a playmate and can lessen the overprotectiveness and overconcern that parents of only children often manifest.

Thus it is apparent that adoption can be hazardous to family relationships unless it is carefully controlled. Like the stepparent, the adopted child may improve family relationships or cause them to deteriorate. Which it will be will depend largely upon how the parents handle the situation—how willing they are to recognize the potential sources of trouble and to cope with them with tact and understanding before they actually develop.

Influence of Concepts of Family Roles on Family Relationships

In most cultures, throughout history, the role of each member of the family has been rigidly prescribed by custom, convention, and law. As a result, the child learns the role he is expected to play at different periods in his life and accepts it without question.

In the American culture today, urban life and the growing tendency for mothers to work outside the home are bringing about changes in the roles of all family members. The changes mean that there is less psychological distance between parent and child in America than in cultures where the roles of parents and children are founded on a belief in the authority of parents over children and of males over females. *As psychological distance decreases, friction is likely to increase.* One of the factors contributing to the increase in deterioration of family relationships in America as children grow older can be traced to changed concepts of family roles.

SPECIFIC FAMILY-ROLE CONCEPTS

Certain concepts of different family roles are widely held by both adults and children in the American culture of today and may be considered typical. In some respects, the child's concept and the adult's concept of a given role are quite different. An examination of these concepts will help to explain the part they play in the deterioration of family relationships as children grow older.

Concept of Parents. To an *adult,* a parent is not just a person who brings a child into the world and cares for him during the helpless years of childhood. "Good parents," from the adult point of view, are people who want the child to be equipped for a happy, useful life. As Bain (7) has pointed out:

> *Good parents are thoroughly committed to the idea that the primary business of parents is to make their children as completely independent of the parents at as early an age as possible. Parents who accept this Golden Rule will produce normal people. They will help construct a good society without which normal people cannot exist.*

While all parents want to be good parents, they have different beliefs about the way to go about it. In general, parents' concepts of their roles fall into two categories: traditional and developmental. The *traditional* concept emphasizes the authoritarian role of the parent, which stresses "making" the child conform to a pattern by instilling in his mind the culturally approved moral and religious values. The *developmental* concept, by contrast, emphasizes respect for the child as a person and permissive, growth-promoting guidance.

Box 17-7

CHILDREN'S CONCEPTS OF PARENTS

Concept of "Good" Parent

- Does things for the child
- Can be depended on by the child
- Is reasonably permissive and giving
- Is fair in discipline
- Respects the child's individuality
- Inspires love, not fear
- Sets a good example
- Is companionable and does things with the child
- Is good-natured most of the time
- Shows the child affection
- Is sympathetic when the child is hurt or in trouble
- Encourages the child to bring friends to the home
- Is interested in making a happy home
- Grants independence appropriate for the child's age
- Does not expect unreasonable achievements

Concept of "Bad" Parent

- Punishes harshly, frequently, and unfairly
- Interferes with child's interests and activities
- Tries to mold the child into a pattern
- Sets a poor example
- Is peevish and cross
- Shows little affection for the child
- Scolds when the child has an accident
- Shows little interest in the child or his activities
- Forbids or does not encourage visits by peers
- Is "mean" to the child's friends
- Discourages or forbids the child's playing with friends
- Tries to "tie apron strings" to the child
- Has unrealistic expectations for the child
- Criticizes or blames the child for failures
- Makes home a stressful and unpleasant place for all

Since *children* are egocentric, their concepts of parents are based mainly on how their parents treat them, especially in the areas of discipline, nurturance, and recreation. Parents are "good," for example, if they help the children, but "bad" if they frustrate them. In Box 17–7 are given some of the major elements in children's concepts of "good" and "bad" parents.

Concept of Mother. The *traditional* concept of the mother's role is more commonly held by members of the lower than of the middle and upper classes today. The mother is viewed as an authoritarian person who disciplines, teaches, and takes care of the children and the house with little help from the father. In middle-class families the concept of the mother's role is more *developmental;* it stresses fostering the development of the child, pursuing interests outside the home, and receiving assistance from the father in the care of the children. Men, as a rule, cling to the traditional concept, while women more often accept the developmental concept.

The young child thinks of the mother as the person who does things for him, takes care of his physical needs with understanding, relates lovingly to him, tolerates a great deal of childish mischief, and comes to his aid in time of trouble. He perceives the mother as exercising stronger authority than the father.

The older child still thinks of the mother primarily in terms of what she does for him, but he recognizes that her authority and prestige in the eyes of the world are not so great as he once thought.

In recent years, as Crowthers has remarked, many popular movies have portrayed "mother" as "a boy's (or a girl's) worst friend." They show her as silly, meddling, stifling, "thoroughly rancid," selfish, snobbish, or meek and maudlin; she is often such an autocrat that the child sides with the father, whom she dominates (37). These portrayals do not help to create a favorable image of the mother in the child's mind.

The general cultural attitudes toward the housewife-mother role also influence the older child's concept of "mother," Stoodley (130) has explained:

> *As children grow up they naturally pick up ideas as to who is the "big wheel" in their family. More often than not it isn't Mother. Perhaps they go to a school where the teachers are women, but the principal is a man. Perhaps they see that the jobs they consider important are occupied mostly by men. Or perhaps they absorb the sentiment of their social milieu which associates prestige with some specific kind of expertness, whether it be that of the certified public accountant, the skilled mechanic, or the physician. Society does not associate this expertness with the mother's role. . . . Faithful to the trend of social influence, as the child orients to a competitive environment in which the prize goes to specific expertness, the mother's influence is more than likely to go into a partial and sometimes a total eclipse.*

It is not surprising that as children's concepts of the role the mother plays in the home and in society change, their attitudes toward their own mother and their assessment of her become more critical.

Concept of Father. To *adults,* the father is, traditionally, the family member who teaches the children by example rather than by precept. This concept is held mainly by fathers of the lower socioeconomic classes. By contrast, fathers of the middle and upper classes hold more to the developmental concept of the father's role, which emphasizes understanding the children, being "pals" or companions, consciously teaching the children, guiding their development, and doing things for and with them.

Most *children* have a fairly definite concept of "father," which differs greatly from their concept of "mother." According to this concept, the father is away from home more than the mother; he punishes more and harder than the mother; he knows more and is, in general, more important than the mother because he earns the money, owns more, and is the head of the family, the "boss." The tendency to perceive the father's role in the family as more powerful is especially likely in the case of boys, as Figure 17–6 points out.

Concept of Child. In the traditional *adult* concept of a "good" child, the child respects his parents, obeys, pleases adults, shares and cooperates in the duties of the home, and is healthy and eager to learn. He honors his parents for their unselfish devotion. The daughter is supposed to help in the household; the son is expected to achieve independence early and to contribute to his support in the home. This traditional concept is more commonly held by lower-class than by middle- and upper-class parents, and more by fathers than by mothers.

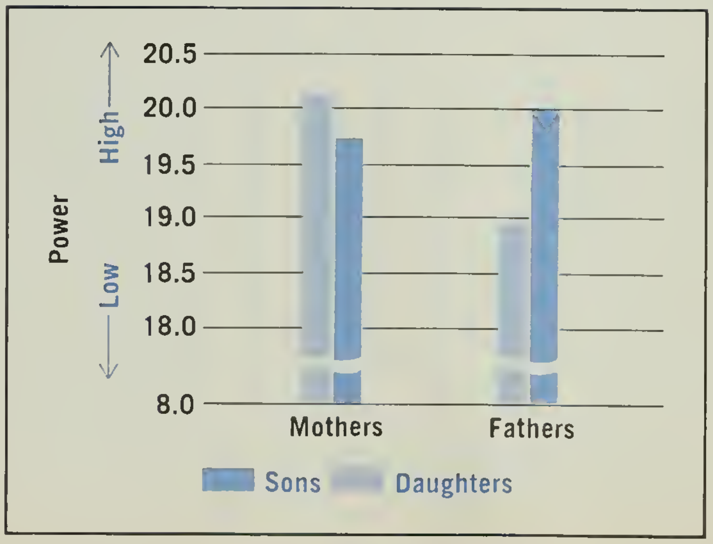
According to the developmental concept, which is more widely held by middle- and upper-class parents, the child is guided into a pattern of development suited to his capacities rather than forced to conform to socially approved ideals.

The *child's* concept of his role is influenced by his parents' concepts. If parents think of the child as a dependent, he will learn to believe that this is the child's role; if they wait on him, he will believe that a child should be waited on. Regardless of social class, most children hold the concept, based on their moral and religious training in the home, the school, and Sunday school, that a "good" child honors and respects his parents and is obedient, cooperative, and never a troublemaker in the home.

Concept of Relatives. Since relatives usually play a minor role in the life of the child, his concepts of them are built on fewer personal experiences and are likely to include meanings he has acquired from his peers' comments and from stories, movies, television, and comics. A child whose most intimate friend has a grandmother living in his home, for example, may hear things about her that will influence his developing concept of "grandmother."

If grandparents are depicted favorably in stories or on the screen, the child will be likely to develop a favorable concept of "grandmother" or "grandfather." However, in the American culture of today, elderly people are usually stereotyped as unattractive in appearance, rigid and punitive in their attitudes, quarrelsome and hard to live with, and old-fashioned in their dress, their manner of doing things, and their values. It is not surprising, therefore, that the child incorporates this stereotype into his own concept of "elderly people."

Figure 17–6. How boys and girls perceive parental power in mothers and fathers. (Adapted from W. Emmerich, Variations in the parent role as a function of the parent's sex and the child's sex and age, Merrill-Palmer Quart., *1962,* **8**, *3–11. Used by permission.)*



The child's concept of grandparents will be largely determined by the closeness of his associations with his own grandparents. If he has many personal contacts with them, his concept will be based more on personal experiences than on stereotypes or on what others say; if his contacts are limited, the reverse will be true.

The child's reactions to a stepparent will be greatly influenced by his concept of "stepmother" or "stepfather." The young child has not had an opportunity to learn the cultural stereotype of the "wicked stepmother" from fairy tales, stories, movies, or comments by peers; therefore, he reacts to a stepmother on the basis of the way she treats him. If she is kind and loving, the young child makes good adjustments to her.

As children grow older, their concept of "stepmother" usually becomes unfavorable. They build up a stereotype of the "wicked stepmother," and this is often reinforced by what members of the peer group say about their stepmothers and by what they read. Stepfathers do not appear in fairy tales, though they do appear in modern fiction and in movies and TV. In general, they are depicted so favorably that any stereotype the child may develop of a stepfather is likely to be more favorable than his stereotype of a stepmother. His concept may be further reinforced by what his friends say about their stepfathers.

EFFECTS OF CONCEPTS OF FAMILY ROLES

Concepts of the roles of different family members have an important bearing on family relationships. If a parent thinks he is a "good parent" but his child thinks he is not, there will be a poor parent-child relationship. A mother who believes that doing things for her children makes her a "good mother," for example, may discover that her children regard her as cold, uninterested, and even rejecting. If their concepts of a "good mother" include demonstrations of affection and permissiveness, they will perceive her far less favorably than she perceives herself, and this will lead to poor mother-child relationships. *Thus, it is not the relationship of parent and child, per se, that is important, but how the child and parent perceive it.*

Far too often, concepts of family roles are so romanticized that they fail to coincide with reality.

The result is that few family members, whether they are parents, children, grandparents, or siblings can hope to come up to the expectations of other family members. Few parents, for example, can approach the romanticized concept of the "ideal" parent presented in the stereotypes of parents in books, comics, or movies. The child who judges his parents by such stereotypes is likely to become highly critical of them and to feel that his parents are inferior to those of his friends.

Patterns of behavior in social relationships tend to persist, and so an unfavorable concept about any family member can damage the relationship with that member and lead to a deterioration in the relationships with other family members. A child who gets along badly with a grandmother because he has a poor concept of "grandmother," for example, often stirs up enough trouble in the family to lead to general family friction. The child who dislikes a stepmother because his concept of her is based on fairy tales can cause enough trouble in the home to precipitate a separation or divorce.

Influence of Preference for One Parent on Family Relationships

A child's slight preference for one parent may be accepted with good humor, or it may lead to hurt feelings and friction. It takes a very mature adult, however, to accept outright rejection without resentment. The close bond that develops between the child and the preferred parent will cause the other parent to feel that he is the third member of a triangle.

The child's preference for one parent is usually based on reasons that, *at that time,* are very important to the child. Of the many factors that determine how the child perceives his parents and interprets what they mean to him, the most important are explained in Box 17–8.

CHILDREN'S WAYS OF SHOWING PREFERENCES

Children, especially when they are young, show their likes and dislikes in easily recognized ways, and thus a parent has little difficulty knowing whether or not he is the preferred parent. Four very common cues indicate where the child's preference lies.

First, the child wants the preferred parent to do things for him most of the time.

Second, when both parents are readily available, the child elects to be with the preferred parent.

Box 17–8

FACTORS INFLUENCING THE CHILD'S PREFERENCE FOR ONE PARENT

Time Spent with the Child

The more a parent is absent, the greater the child's preference for the other.

Play with the Child

The mother has more opportunity to play with the child than the father. The father often feels uncomfortable playing with the young child.

Care of the Child

Mothers must assume the care of the child's physical needs because fathers are unavailable or regard this as "woman's work."

Expression of Affection

Fathers often fail to show their affection in ways the child can understand because they feel that such expressions of affection are unmasculine.

Discipline

As mothers are more tolerant and use corporal punishment less than fathers, they are usually preferred. Children turn toward the parent who "lets me" and away from the parent who "won't let me."

Parental Expectations

The parent who expects too much of the child and who is critical when the child does not live up to his expectations is less favored.

Parental Favoritism

The child who is the parent's favorite usually prefers that parent; the child who is not the favorite prefers the other parent. That is why boys generally prefer their mothers, and girls, as they grow older, prefer their fathers.

Status of Parents

Since the mother is the important parent in early childhood, she is usually the favorite. As the child grows older, he discovers that the father's role is more highly valued by the social group and this encourages him to shift his preference to the father.

Concept of Ideal Parent

As ideal concepts change, the parent who more closely fits the child's ideal of what a parent should be *at that time* will be the favorite parent.

Third, the child identifies with and imitates the preferred parent. If he says, "I want to be just like Mommy when I grow up," he is saying, "I prefer Mommy to Daddy."

Fourth, the term of address the child uses for a favored parent has a warmth to it that is lacking in the term used for a less favored parent. This warmth may not be in the label itself, but in the way the child says it.

Even as children grow older and learn, from social contacts outside the home, how to be more tactful in their interpersonal relationships, their ways of showing preferences for parents are still far from subtle. A very mature parent will accept childish preferences in a philosophical and sometimes a good-natured way. Unfortunately, few parents are so mature, and the child's preferences are a source of potential trouble in the family.

EFFECTS OF CHILDISH PREFERENCES ON FAMILY RELATIONSHIPS

How childish preferences for one parent will affect family relationships will depend on how the parent reacts to the preferences and to the child himself.

If the child shows a readily interpreted preference for the mother, for example, the mother will feel so loved and appreciated that she will want to reciprocate. She will do more for the child than she otherwise would and will show her love for him more frequently and more warmly. Thus, the influence is circular, with the child affecting the parent and the parent, in turn, affecting the child. It is from this interaction that the effect on family relationships is felt.

Just as a child resents parental favoritism toward one sibling, so does a parent resent a child's preference for the other parent. The father who discovers that the child prefers to be with his mother and to have his mother do things for him has a less warm and affectionate feeling toward the child than the father who is preferred. It is flattering to an adult to feel that he is an important person in the eyes of his child, and it is ego-deflating to feel that he is unimportant.

Once a preference has been established, it is difficult to break down. This is equally true of a parent's preference for one child and of a child's preference for one parent. This persistence can be traced to the effect of preference on an individual's behavior and the reaction his behavior elicits from the other person. The parent who is first favored—the mother—because of her care of the child, gets the "inside track" on the child's affection. He reacts to her favorably, and this reinforces her favorable reaction to him. A circular reaction results which is difficult or impossible to break.

While factors other than care of the child contribute to the preference for the mother, most children remain dependent and need some parental care at least until they reach adolescence. Consequently, the factors that might put the father in the position of preference as the child grows older, such as his greater power in the home, his prestige in the community, or his vocational success, may not be strong enough to counteract the initial advantage the mother has. The father's position in the preference ratio may improve as the child grows older, but the mother usually remains the favorite throughout the childhood years.

As children approach adolescence, many boys begin to shift their preference from the mother to the father. When this happens, there is often a split between the sexes, with the father and sons on one side and the mother and daughters on the other. Any split in family relationships, no matter how slight it may be, is likely to lead to friction. Thus, as preferences shift from one parent to the other, they continue to play an important role in the deterioration of family relationships. Were there no other causes of deterioration, the shifting of preferences alone would be enough to bring it about.

Highlights of Chapter 17

1. Changes in the American family pattern since the turn of the century have resulted in changes in family relationships, especially in parent-child and grandparent-child relationships.

2. Deterioration in family relationships, which usually begins after the child's first year of life, is due to many factors. The most important are changes in parent-child relationships, changes in the family pattern, changes in sibling relationships, and changes in relationships with relatives.

3. Parental attitudes, which have a marked influence on family relationships, vary greatly, but the most common are overprotectiveness, permissiveness, rejection, acceptance, domination, submission to the child, favoritism, and ambitiousness for the child.

4. Family relationships are markedly influenced

by child-training methods, with authoritarian and ultrapermissive methods leading to poor relationships and democratic methods to favorable ones.

5. The influence of family size on family relationships comes from the number of interactional systems there are in the family, the composition of the family, parental attitudes toward family size, and the spacing of the arrival of children.

6. Different-sized families—one-child, small, medium, or large—have different influences on family relationships.

7. Sibling relationships contribute to deterioration in family relationships in childhood because of their predominantly frictional character.

8. Factors in the home setting that influence family relationships include the social status of the family, parental occupations, outsiders in the home, broken homes, remarriage, defective children, and adopted children.

9. Concepts of family roles may be either traditional or developmental. When there is a clash between the concepts family members hold, family relationships deteriorate. When the concepts harmonize, family relationships are good.

10. Mass media and personal experiences influence one's concepts of different family-member roles, especially those of parents and grandparents.

11. The child's preference for one parent is based on such factors as the time the parent spends with and plays with the child, the care and affection the child receives from the parent, the kind of discipline the parent uses, parental expectations and favoritism, the status of the parent in the family, and the degree to which the child idealizes the parent.

12. Preference for one parent, usually shown in easily recognized forms, can be a source of parental friction which plays havoc with good family relationships.

Bibliography

1. Abel, H., and R. Gingles: Life goals of parents for children. *J. Home Econ.*, 1965, **57**, 734–735.
2. Altus, W. B.: Birth order and its sequelae. *Science*, 1966, **151**, 44–49.
3. Anderson, L. A.: Personality characteristics of parents of neurotic, aggressive and normal preadolescent boys. *J. consult. clin. Psychol.*, 1969, **33**, 575–581.
4. Anderson, R. E.: Where's Dad? Paternal deprivation and delinquency. *Arch. gen. Psychiat.*, 1968, **18**, 641–649.
5. Anthony, E. J.: The impact of mental and physical illness on family life. *Amer. J. Psychiat.*, 1970, **127**, 138–146.
6. Armentrout, J. A.: Siblings' concurrent perceptions of their parents' child-rearing attitudes. *Percept. mot. Skills*, 1970, **30**, 782.
7. Bain, R.: Making normal people. *Marriage fam. Living*, 1954, **16**, 27–31.
8. Banducci, R.: The effect of mother's employment on the achievement aspirations and expectations of the child. *Personnel Guid. J.*, 1967, **46**, 263–267.
9. Barry, H., and H. Barry: Birth order, family size and schizophrenia. *Arch. gen. Psychiat.*, 1967, **17**, 435–440.
10. Baugh, J. R., G. R. Pascal, and T. B. Cottrell: Relationship between reported memories of early experiences with parents on interview behavior. *J. consult. clin. Psychol.*, 1970, **35**, 23–29.
11. Baumrind, D.: Current patterns of parental authority. *Develpm. Psychol. Monogr.*, 1971, **4**, no. 1, part 2.
12. Bayley, N., and E. S. Schaefer: Relationships between socioeconomic variables and the behavior of mothers toward young children. *J. genet. Psychol.*, 1960, **96**, 61–77.
13. Becker, J., and E. Iwakami: Conflict and dominance within families of disturbed children. *J. abnorm. Psychol.*, 1969, **74**, 330–335.
14. Bell, R. Q.: A reinterpretation of the direction of effects in studies of socialization. *Psychol. Rep.*, 1968, **75**, 81–95.
15. Bigner, J. J.: Fathering: Research and practice implications. *Family Coordinator*, 1970, **19**, 357–362.
16. Biller, H. B.: Father dominance and sex-role development in kindergarten-age boys. *Develpm. Psychol.*, 1969, **1**, 87–94.
17. Blood, R. O.: Kinship interaction and marital solidarity. *Merrill-Palmer Quart.*, 1969, **15**, 171–184.
18. Boroson, W.: First-born: Fortune's favorite? *The New York Times*, Dec. 13, 1970.
19. Bossard, J. H. S., and E. S. Boll: *The sociology of child development*, 4th ed. New York: Harper & Row, 1966.
20. Bowerman, C. E., and D. P. Irish: Some relationships of stepchildren with their parents. *Marriage fam. Living*, 1962, **24**, 113–121.
21. Bowerman, C. E., and J. W. Kinch: Changes in family and peer orientation of children between the fourth and tenth grades. *Soc. Forces*, 1959, **37**, 206–211.
22. Brody, G. F.: Maternal child-rearing attitudes and child behavior. *Develpm. Psychol.*, 1969, **1**, 66.

23. Burch, T. K.: The size and structure of families: A comparative analysis of census data. *Amer. sociol. Rev.,* 1967, **32,** 347–363.
24. Burgess, J. K.: The single-parent family: A social and sociological problem. *Family Coordinator,* 1970, **19,** 137–144.
25. Burton, D.: Birth order and intelligence. *J. soc. Psychol.,* 1968, **76,** 199–206.
26. Caldwell, B. M., L. Hersher, E. L. Lipton, J. B. Richmond, G. A. Stern, E. Eddy, R. Drachman, and A. Rothman: Mother-infant interaction in monomatric and polymatric families. *Amer. J. Orthopsychiat.,* 1963, **33,** 653–664.
27. Catton, W. R.: What's in a name? A study of role inertia. *J. Marriage & Family,* 1969, **31,** 15–18.
28. Chen, R.: The dilemma of divorce: Disaster or remedy. *Family Coordinator,* 1968, **17,** 251–254.
29. Chilman, C. S.: Families in development at mid-stage of the family life cycle. *Family Coordinator,* 1968, **17,** 297–312.
30. Chittenden, E. A., M. W. Foan, D. M. Zweil, and J. R. Smith: School achievement of first- and second-born siblings. *Child Develpm.,* 1968, **39,** 1223–1228.
31. Christensen, H. T.: Children in the family: Relationship of number and spacing to marital success. *J. Marriage & Family,* 1968, **30,** 283–289.
32. Clark, A. W., and P. Van Sommers: Contradictory demands in family relations and adjustments to school and home. *Hum. Relat.,* 1961, **14,** 97–111.
33. Clavan, S.: The family process: A sociological model. *Family Coordinator,* 1968, **17,** 312–317.
34. Cohler, B. J., J. L. Weiss, and H. U. Grunnebaum: Child-care attitude and emotional disturbance among mothers of young children. *Genet. Psychol. Monogr.,* 1970, **82,** 3–47.
35. Cottle, T. J.: Family perceptions, sex role identity, and the prediction of school performance. *Educ. psychol. Measmt,* 1968, **28,** 861–886.
36. Cox, S. H.: Intrafamily comparison of loving-rejecting child-rearing practices. *Child Develpm.,* 1970, **41,** 437–448.
37. Crowthers, B.: Poor Mom. *The New York Times,* Apr. 22, 1962.
38. Cumming, E., and D. M. Schneider: Sibling solidarity: A property of American kinship. *Amer. Anthropologist,* 1961, **63,** 498–507.
39. Cummings, S. T., H. C. Bayley, and H. E. Rie: Effects of the child's deficiency on the mother: A study of mothers of mentally retarded, chronically ill and neurotic children. *Amer. J. Orthopsychiat.,* 1966, **36,** 595–608.
40. Dandes, H. M., and D. Dow: Relation of intelligence to family size and density. *Child Develpm.,* 1969, **40,** 641–647.
41. Day, L. H., and A. T. Day: Family size in industrialized countries: An inquiry into the social-cultural determinants of level of child bearing. *J. Marriage & Family,* 1969, **31,** 242–251.
42. Devereux, E. C., U. Bronfenbrenner, and R. R. Rodgers: Child-rearing in England and the United States: A cross-national comparison. *J. Marriage & Family,* 1969, **31,** 257–270.
43. Devor, G. M.: Children as agents in socializing parents. *Family Coordinator,* 1970, **19,** 208–212.
44. Doig, I.: Interracial adoptions: How are they working. *Parents' Magazine,* Feb., 1971, pp. 63–65.
45. Elkind, D.: Children's conceptions of brother and sister: Piaget replication study. *J. genet. Psychol.,* 1962, **100,** 129–136.
46. Emmerich, W.: The parental role: A functional-cognitive approach. *Monogr. Soc. Res. Child Develpm.,* 1969, **34,** no. 8.
47. Farley, J.: Maternal employment and child behavior. *Cornell J. soc. Relat.,* 1968, **3,** 58–71.
48. Fast, I., and A. C. Cain: The stepparent role: Potential for disturbances in family functioning. *Amer. J. Orthopsychiat.,* 1966, **36,** 485–491.
49. Flügel, J. C.: *The psychoanalytic study of the family.* London: Int. Psychoan. Lib., 1929, no. 3.
50. Foster, J. E.: Father images: Television and ideal. *J. Marriage & Family,* 1964, **26,** 353–355.
51. Fowle, C. M.: The effect of the severely mentally retarded child on his family. *Amer. J. ment. Defic.,* 1968, **73,** 468–473.
52. Freedman, R., and L. Combs: Child spacing and family economic position. *Amer. sociol. Rev.,* 1966, **31,** 631–648.
53. Freud, S.: *The standard edition of the complete psychological works of Sigmund Freud.* London: Hogarth, 1953–1962.
54. Friedman, S. T.: Relation of parental attitudes toward child rearing and patterns of social behavior in middle childhood. *Psychol. Rep.,* 1969, **24,** 575–579.
55. George, E. L., and M. Thomas: A comparative study of children of employed mothers and unemployed mothers. *Psychol. Studies,* 1967, **12,** 32–38.
56. Gibson, H. B.: The measurement of parental attitudes and their relation to boys' behavior. *Brit. J. educ. Psychol.,* 1968, **38,** 233–239.
57. Goldin, P. C.: A review of children's reports of parent behaviors. *Psychol. Bull.,* 1969, **71,** 222–236.
58. Guerney, B. G., L. Stover, and S. Demeritt: A measurement of empathy in parent-child interaction. *J. genet. Psychol.,* 1968, **112,** 45–55.
59. Gurman, A. S.: The role of the family in underachievement. *J. sch. Psychol.,* 1970, **8,** 48–53.
60. Hader, M.: The importance of grandparents in family life. *Family Process,* 1965, **4,** 228–240.
61. Hagstrom, W. O., and J. K. Hadden: Sentiment and kinship terminology in American society. *J. Marriage & Family,* 1965, **27,** 324–332.
62. Halverson, C. F., and M. F. Waldrop: Maternal behavior toward own and other preschool children: The problem of "ownness." *Child Develpm.,* 1970, **41,** 839–845.
63. Harrell-Bond, B. E.: Conjugal role behavior. *Hum. Relat.,* 1969, **22,** 77–91.
64. Harris, D. B., and S. C. Tseng: Children's attitudes toward peers and parents as revealed by sentence completions. *Child Develpm.,* 1957, **28,** 401–411.
65. Harris, I. D., and K. I. Howard: Birth order and responsibility. *J. Marriage & Family,* 1968, **30,** 427–432.
66. Hartley, R. E.: Children's perception of sex preference in four culture groups. *J. Marriage & Family,* 1969, **31,** 380–387.
67. Heaps, R. A.: Some relationships among children's perceptions of parental characteristics. *J. genet. Psychol.,* 1970, **117,** 7–11.

68. Hechinger, G., and F. Hechinger: My brother, the pest. *The New York Times,* Nov. 1, 1970.

69. Hendershot, G. E.: Familial satisfaction, birth order and fertility values. *J. Marriage & Family,* 1969, **31,** 27–33.

70. Henry, J.: Permissiveness and morality. *Ment. Hyg., N. Y.,* 1961, **45,** 282–287.

71. Hickey, T., L. A. Hickey, and R. A. Kalish: Children's perceptions of the elderly. *J. genet. Psychol.,* 1968, **112,** 227–235.

72. Higgins, J., J. C. Peterson, and L. L. Dolby: Social adjustment and familial schema. *J. abnorm. Psychol.,* 1969, **74,** 296–299.

73. Hobbs, D. F.: Transition to parenthood: A replication and an extension. *J. Marriage & Family,* 1968, **30,** 413–417.

74. Irish, D. P.: Sibling interaction: A neglected aspect in family life research. *Soc. Forces,* 1964, **42,** 279–288.

75. Jackson, L.: Unsuccessful adoptions: A study of 40 cases who attended a child guidance clinic. *Brit. J. med. Psychol.,* 1968, **41,** 389–398.

76. Jacoby, A. P.: Transition to parenthood: A reassessment. *J. Marriage & Family,* 1969, **31,** 720–727.

77. Johnson, B., and H. A. Morse: Injured children and their parents. *Children,* 1968, **15,** 147–152.

78. Kahana, B., and E. Kahana: Grandparenthood from the perspective of the developing grandchild. *Develpm. Psychol.,* 1970, **3,** 92–105.

79. Kalish, R. A.: Children and grandfathers: A speculative essay on dependency. *Gerontologist,* 1967, **7,** 65–69, 79.

80. Kearns, B. J. R.: Child rearing practices among selected culturally deprived minorities. *J. genet. Psychol.,* 1970, **116,** 149–155.

81. Kenkel, W. F.: Marriage and the family in modern science fiction. *J. Marriage & Family,* 1969, **31,** 6–14.

82. Khatri, A. A., and B. B. Siddiqui: "A boy or a girl?" Preferences of parents for sex of offspring as perceived by East Indian and American children: A cross cultural study. *J. Marriage & Family,* 1969, **31,** 388–392.

83. Kim, C. C., R. J. Dales, R. Connor, J. Walters, and R. Witherspoon: Social interaction of like-sex twins and singletons in relation to intelligence, language and physical environment. *J. genet. Psychol.,* 1969, **114,** 203–214.

84. King, R. C.: Sibling rivalry: The price of misguided democracy in the family. *Austral. Psychologist,* 1967, **2,** 1.

85. Koch, H. L.: The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. *Monogr. Soc. Res. Child Develpm.,* 1960, **25,** no. 4.

86. Kogan, N., and F. C. Shelton: Beliefs about "old people": A comparative study of older and younger samples. *J. genet. Psychol.,* 1962, **100,** 3–21.

87. Kopf, K. E.: Family variables and school adjustment of eighth-grade father-absent boys. *Family Coordinator,* 1970, **19,** 145–150.

88. Kramer, R.: Phasing out Mom and Dad. *The New York Times,* Nov. 2, 1969.

89. LaBarre, M. B., L. Jessner, and L. Ussery: The significance of grandmothers in the psychopathology of children. *Amer. J. Orthopsychiat.,* 1960, **30,** 175–185.

90. Laury, G. V., and J. A. M. Meerloo: Subtle types of mental cruelty to children. *Child & Family,* 1967, **6,** no. 2, 28–34.

91. Lazerwitz, B., and L. Rowitz: The three generation hypothesis. *Amer. J. Sociol.,* 1964, **69,** 529–538.

92. LeShan, E. J.: The "perfect" child. *The New York Times,* Aug. 27, 1967.

93. Lewis, L. S.: Terms of address for parents and some clues about social relationships in the American family. *Family Life Coordinator,* 1965, **14,** 43–46.

94. Lieberman, E. J.: A case for small families. *The New York Times,* Mar. 9, 1970.

95. Livson, N.: Parental behavior and children's involvement with their parents. *J. genet. Psychol.,* 1966, **109,** 173–194.

96. McCandless, B. R.: Problems of child rearing in a changing society. *Family Coordinator,* 1969, **18,** 291–293.

97. McDermott, J. F.: Parental divorce in early childhood. *Amer. J. Psychiat.,* 1968, **124,** 1424–1432.

98. Melnick, H., and J. R. Hurley: Distinctive personality attributes of child-abusing mothers. *J. consult. clin. Psychol.,* 1969, **33,** 746–749.

99. Messer, A. A.: The only-child syndrome. *The New York Times,* Feb. 25, 1968.

100. Michel, A., and F. L. Feyrabend: Real number of children and conjugal interaction in French urban families: A comparison with American families. *J. Marriage & Family,* 1969, **31,** 359–379.

101. Miley, C. H.: Birth order research, 1963–1967: Bibliography and index. *J. indiv. Psychol.,* 1969, **25,** 64–69.

102. Nakamura, C. Y., and M. M. Rogers: Parents' expectations of autonomous behavior and children's autonomy. *Develpm. Psychol.,* 1969, **1,** 613–617.

103. Nash, J.: The father in contemporary culture and current psychological literature. *Child Develpm.,* 1965, **36,** 261–297.

104. Neugarten, B. L., and K. K. Weinstein: The changing American grandparent. *Marriage fam. Living,* 1964, **26,** 199–204.

105. Nikelly, A. G.: Maternal indulgence and neglect and maladjustment in adolescence. *J. clin. Psychol.,* 1967, **23,** 148–150.

106. Packard, V.: *The status seekers.* New York: Pocket, 1961.

107. Papanek, M. L.: Authority and sex roles in the family. *J. Marriage & Family,* 1969, **31,** 88–96.

108. Perry, J. B., and E. H. Pfuhl: Adjustment of children in "solo" and "remarriage" homes. *Marriage fam. Living,* 1963, **25,** 221–223.

109. Perrucci, C. C.: Mobility, marriage and child-spacing among college graduates. *J. Marriage & Family,* 1968, **30,** 273–282.

110. Pohlman, E.: Statistical evidence of rationalization: Preferences for sex of child. *Psychol. Rep.,* 1967, **20,** 1180.

111. Pohlman, E. W.: Burgess and Cottrell data on "desire for children": An example of distortion in marriage and family textbooks? *J. Marriage & Family,* 1968, **30,** 433–436.

112. Rand, W., M. E. Sweeney, and E. L. Vincent: *Growth and development of the young child,* 7th ed.

Philadelphia: Saunders, 1963.

113. Reinhold, R.: Two-year study links child abuse to role of violence in rearing. *The New York Times,* Dec. 13, 1970.

114. Richer, S.: The economics of child rearing. *J. Marriage & Family,* 1968, **30**, 462–466.

115. Rodman, H., F. R. Nichols, and P. Voydanoff: Lower-class attitudes toward "deviant" family patterns: A cross-cultural study. *J. Marriage & Family,* 1969, **31**, 315–321.

116. Rosenbaum, M.: Psychological effects on the child reared by an older sibling. *Amer. J. Orthopsychiat.,* 1963, **33**, 515–520.

117. Rosenberg, B. G., and B. Sutton-Smith: Family interaction effects on masculinity and femininity. *J. Pers. soc. Psychol.,* 1968, **8**, 117–120.

118. Rossman, I.: *Two children by choice: The why and how of the two child family.* New York: Parents' Magazine, 1970.

119. Rothbart, M. K., and E. E. Maccoby: Parents' differential reactions to sons and daughters. *J. Pers. soc. Psychol.,* 1966, **4**, 237–243.

120. Russell, D. H., and A. H. Rosenberg: Single-parent adoptions. *New Eng. J. Med.,* 1968, **279**, 259–260.

121. Schaefer, E. S., and N. Bayley: Consistency of maternal behavior from infancy to preadolescence. *J. abnorm. soc. Psychol.,* 1960, **61**, 1–6.

122. Schvaneveldt, J. D., M. Fryer, and R. Ostler: Concepts of "badness" and "goodness" of parents as perceived by nursery school children. *Family Coordinator,* 1970, **19**, 98–103.

123. Sears, R. R., E. E. Maccoby, and H. Levin: *Patterns of child rearing.* New York: Harper & Row, 1957.

124. Senzel, B., and M. Yeakel: Relationship capacity and "acknowledgement of difference" in adoptive parenthood. *Smith Coll. Stud. soc. Wk,* 1970, **40**, 155–163.

125. Siegelman, M.: Loving and punishing parental behaviors and introversion tendencies in sons. *Child Develpm.,* 1966, **37**, 985–992.

126. Smelser, W. T., and L. H. Stewart: Where are the siblings? A re-evaluation of the relationship between birth order and college attendance. *Sociometry,* 1968, **31**, 294–303.

127. Smith, T. E.: Social class and attitudes toward fathers. *Sociol. soc. Res.,* 1969, **53**, 217–226.

128. Stehbens, J. A., and D. L. Carr: Perceptions of parental attitudes by students varying in intellectual ability and educational efficiency. *Psychology in the Schools,* 1970, **7**, 67–73.

129. Stinnett, N., and J. E. Montgomery: Youth's perceptions of marriages of older persons. *J. Marriage & Family,* 1968, **30**, 392–396.

130. Stoodley, B. H.: Mother role as a focus of some family problems. *Marriage fam. Living,* 1952, **14**, 13–16.

131. Sutton-Smith, B., B. G. Rosenberg, and F. Landy: Father-absence effects in families of different family compositions. *Child Develpm.,* 1968, **39**, 1213–1221.

132. Sutton-Smith, B., and B. G. Rosenberg: *The sibling.* New York: Holt, 1970.

133. Sweetser, D. A.: The structure of sibling relationships. *Amer. J. Sociol.,* 1970, **76**, 47–58.

134. Tallman, I.: Working-class wives in suburbia: Fulfillment or crisis? *J. Marriage & Family,* 1969, **31**, 65–72.

135. Tomeh, A. K.: Birth order and kinship affiliation. *J. Marriage & Family,* 1969, **31**, 19–26.

136. Tremonti, J. B.: The role of the home in promoting reading. *Reading Horizons,* 1969, **10**, 12–17.

137. U. S. News and World Report: The growing toll of America's "broken homes." Aug. 5, 1968, pp. 92–93.

138. Van derVeen, F.: The parents' concept of the family unit and child adjustment. *J. counsel. Psychol.,* 1965, **12**, 196–200.

139. Verger, D.: Birth order and sibling differences in interests. *J. indiv. Psychol.,* 1968, **24**, 56–59.

140. Waldrop, M. F., and R. Q. Bell: Relation of preschool dependency behavior to family size and density. *Child Develpm.,* 1964, **35**, 1187–1195.

141. Ward, W. D.: Process of sex-role development. *Develpm. Psychol.,* 1969, **1**, 163–168.

142. Weinstock, A. R.: Family environment and the development of defense and coping mechanisms. *J. Pers. soc. Psychol.,* 1967, **5**, 67–75.

143. Yourglich, A.: A comparative analysis of two studies on age-sex differentiations in sibling systems. *Family Life Coordinator,* 1967, **16**, 73–77.

144. Zuger, B.: The role of familial factors in the persistent effeminate behavior in boys. *Amer. J. Psychiat.,* 1970, **126**, 1167–1170.

145. Zunich, N.: Relationship between maternal behavior and attitudes toward children. *J. genet. Psychol.,* 1962, **100**, 155–165.

JOE MOLNAR

CHAPTER EIGHTEEN Personality

POPULAR RECOGNITION of the role personality plays in successful adjustments to modern life has given strong impetus to the scientific study of personality. In simple cultures, personality is of secondary importance in social relationships, but in cultures where social life is complex, personality is of major importance. Today's parents and teachers put great emphasis on developing personality patterns in children which will help them to make satisfactory adjustments both in the present and in the future.

A second impetus to the scientific study of personality has come from the growing evidence that learning, rather than heredity, largely determines what one's personality will be like. It is now recognized that the personality, like many other areas of development, is controllable and that the child can, with guidance and help, develop a personality that will make successful adjustments to life possible.

The third and, in many respects, the greatest impetus to the scientific study of personality is the realization that, since personality development can be controlled, the personality pattern can also be changed and modified in ways that lead to improved personal and social adjustments. While there is no evidence of a deadline after which learning cannot bring about modifications in an undesirable trait, there is evidence that the early years of life are the "critical" years in personality development and that with each passing year changes are more difficult to accomplish.

Meaning of Personality

The term "personality" comes from the Latin word *persona*, meaning "mask." Among the ancient Greeks, the actors wore masks to hide their identity and to enable them to represent the characters they were depicting in the play. This dramatic technique was later adopted by the Romans, and from them we get our modern term personality.

To the Romans, *persona* meant "as one appears to others," not as one actually is. The actor was creating, in the minds of the audience, an impression of the character he was depicting on the stage, not an impression of what he himself was. From this connotation of the word *persona*, our popular idea of personality as the effect one has on others has been derived. What a person is, how he thinks and feels, and what is included in his whole psychological makeup are, to a great extent, revealed through his behavior. Personality, then, is not one definite, specific attribute; rather, it is, as Woodworth and Marquis claimed, the "quality of the individual's total behavior" (182).

ALLPORT'S DEFINITION OF PERSONALITY

Of the many definitions of "personality," perhaps the most inclusive is that of Allport, who has defined personality as the *dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment* (4). The term "dynamic" points up the changing nature of personality; it emphasizes that changes can occur in the quality of a person's behavior. "Organization" implies that personality is not made up of a number of different traits, one simply added to the other, but that they are interrelated. The interrelationship changes, with some traits becoming more dominant and others less so, with changes in the child and in his environment.

The "psychophysical systems" are the habits, attitudes, values, beliefs, emotional states, sentiments, and motives which are psychological in nature but which have a physical basis in the child's neural, glandular, and general bodily states. These systems are not the product of heredity, though they are based on hereditary foundations; they have been developed through learning as a result of the child's various experiences.

The psychophysical systems are the *motivating forces* which determine what kind of adjustment the child will make. Since each child has different learning experiences, the kind of adjustment he makes is "unique" in the sense that no other child, even an identical twin, will react in exactly the same manner. Furthermore, as the psychophysical systems are the product of learning, the traditional belief that personality traits are inherited is refuted.

The Personality Pattern

The two major components of the personality pattern are the "core"—the concept of self—and the "spokes of the wheel"—the traits which are held together and influenced by the core. A description of each of these components is given in Box 18-1.

The distinction between the normal and the abnormal personality pattern is to be found in the degree of organization that exists. The normal, healthy personality is a highly correlative, structured pattern:

the abnormal personality shows disorganization in varying degrees. The severity of the abnormality is directly related to the degree of disorganization.

The degree of stability of the self-concept plays an important role in the degree of organization of the personality pattern. In the *real self-concept*, instability occurs when the child has conflicting concepts of what he is. These may derive from different people with whom he is associated or from his success or failure in his undertakings. They may result from inconsistent treatment in the home or from discrepancies between the way people in the home and outside the home treat him. Instability may also occur when there is a marked discrepancy between the child's real self-concept and his ideal self-concept. Instability in the ideal self-concept occurs when the child shifts from one ideal to another, when he is readjusting his concept of which ideal he would like to imitate.

Of the two components of the personality pattern, the self-concept is the more important. It is the core of the pattern and thus influences the form the different traits take. If it is a positive concept, the child will develop such traits as self-confidence, self-esteem, and the ability to see himself realistically and to assess his relationships with others accurately. These traits will lead to good personal and social adjustments. If the self-concept is negative, the child will develop feelings of uncertainty, inferiority, inadequacy, lack of self-confidence, and low self-esteem, which will lead to poor adjustments.

DEVELOPMENT OF THE PERSONALITY PATTERN

Three factors are responsible for the development of the personality pattern: hereditary endowment, early experiences within the family, and events in later life. The pattern is closely associated with the maturation of the physical and mental characteristics which constitute the individual's *hereditary endowment*. The importance of the hereditary foundations in determining the personality pattern has been stressed by Rainwater (128):

> *Personality is formed from the interaction of significant figures (first the mother, later the father and siblings, later extra familiar figures) in his environment with the child. The child brings to this interaction a certain biological constitution, certain needs and drives, and certain intellectual capacities which determine his reactions to the way in which he is acted upon by these significant figures.*

Learning greatly influences the development of the personality pattern. Attitudes toward self and characteristic methods of responding to people and situations—the traits of personality—are learned through repetition and the satisfaction they bring.

The child who thinks of himself as inferior, for example, will develop characteristic methods of adjusting that will differ markedly from those developed by the child whose concept of self is more positive. If the child learns, from experiences in the home or school, to think of himself as an "imp," his adjustments to life will be very different from

Box 18-1

COMPONENTS OF THE PERSONALITY PATTERN

The Self-concept

The *real self-concept* is the concept the person has of who and what he is. It is a mirror image, determined largely by his roles, his relationships with others, and what he believes their reactions to him are. The *ideal self-concept* is the picture the person holds of what he would like to be.

Each kind of self-concept has a physical and a psychological aspect. The *physical* is composed of the individual's concept of his appearance, its sex appropriateness, the importance of his body in relation to his behavior, and the prestige his body gives him in the eyes of others. The *psychological* is composed of the person's concepts of his abilities and disabilities, his worth, and his relationships with others. At first, these are separate, but they gradually fuse as childhood progresses.

Traits

Traits are specific qualities of behavior or adjustive patterns, such as reactions to frustrations, ways of meeting problems, aggressive and defensive behavior, and outgoing or withdrawing behavior in the presence of others. Traits are integrated with and influenced by the self-concept. Some are separate and distinct, while others are combined into syndromes or related patterns of behavior.

Traits have two outstanding characteristics: *individuality*, which is shown in variations in the quantity of a particular trait rather than in a trait peculiar to that person, and *consistency*, which means that the person behaves in approximately the same way in similar situations and under similar conditions.

what they would be if he thought of himself as an "angel." Figure 18-1 suggests how experiences lead to self-concepts which color the child's patterns of adjustment to life.

Social pressures in the home, the school, and the peer group likewise influence the form the traits will take. When aggressiveness is encouraged, because it is considered a sex-appropriate trait for boys, the boy will try to learn to behave in an aggressive manner.

Since the self-concept and the traits are developed differently, they will be discussed separately. It is necessary to keep in mind, however, that the three factors discussed above—hereditary endowment, early home experiences, and events in later life—all help to determine the pattern of development of both the self-concept and the traits.

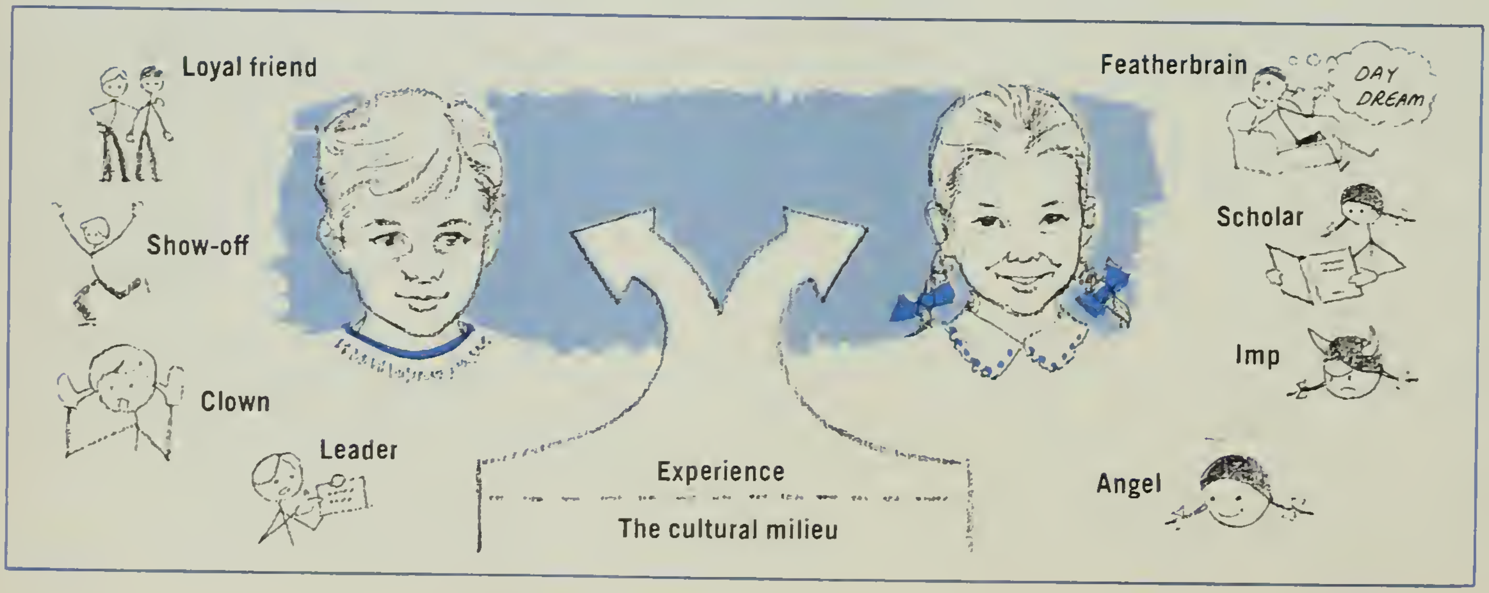
Development of Self-concept. The child's concept of self, as was explained in Chapter 14, Development of Understanding, comes from his contacts with people, how they treat him, what they say to and about him, and what status he holds in the group. At first, the most significant people in the child's life are family members and, as a result, their influence on his developing self-concept is dominant. Later, as peers and teachers become significant in his life, their influence on his self-concept becomes greater and greater.

The role of hereditary endowment in the development of the self-concept comes from the way the child interprets the treatment he receives from others. As was pointed out in Chapter 10, social insight is greatly influenced by the child's level of intelligence. Age for age, the brighter the child, the better he can interpret how people feel about him from what they say or do. His interpretation of their feelings, in turn, determines whether he will develop a favorable or unfavorable self-concept.

By adolescence, the self-concept is firmly established, though often it is revised later as the child undergoes new personal and social experiences. The child who developed a concept of himself as an outstanding athlete because he could play games better than his gang members may have to revise that concept radically when he reaches high school and finds that his sports skills are so inferior to those of his age-mates that he cannot make the athletic teams.

Unfortunately, few parents or teachers are aware of the kind of self-concept a child is developing, and few try to make sure that it will be both realistic and favorable enough that the child will be willing to accept himself. The damage resulting from the haphazard, uncontrolled development of the self-concept in childhood has been discussed by Jersild (83):

Figure 18-1. The concept of self determines the characteristic role the child learns to play. (Adapted from H. G. Shane, Social experiences and selfhood, Childhood Educ., *1957,* **33,** *297-298. Used by permission.)*



> *From an early age, without being deliberate about it, he (the child) acquires ideas and attitudes about himself and others. These are woven into the pattern of his life. They may be true or false, healthy or morbid. Their development is left largely to chance. . . . A large proportion of children will move into adulthood troubled and unhappy about many things. Many will be afflicted by irrational fears which do not represent dangers in the external environment but unresolved problems within themselves. Many, as adults, will suffer from attitudes of hostility, vindictiveness, and defensiveness which are not a response to hostile forces in the outside world but represent attitudes carried over from unresolved childhood struggles. Many persons similarly will acquire persisting feelings of inferiority or other unhealthy attitudes regarding their personal worth which represent either an irrational estimate of themselves or a failure to accept themselves realistically as they are. In numerous ways there is a vast carry-over of unhealthy attitudes regarding self and others from childhood and adolescence into adult life.*

Development of Traits. Traits are a product of learning; at the same time, they are based on a hereditary foundation. They are molded mainly by child training in the home and school and by imitation of the person with whom the child identifies. If the child identifies with the father, he will imitate the father's characteristic methods of reacting to people and situations to the point where it appears that he inherited these characteristics. Later, he will imitate the traits of members of the peer group, developing the characteristic methods of adjustment accepted and approved by the group.

The relationship of child training and identification to the development of personality traits has been shown by studies of father absence from the home during the early, formative years of the child's life. While father absence has little influence on the personality development of girls, who tend to identify with their mothers and who are trained to behave in a manner appropriate for members of their sex, it has great influence on the developing personalities of boys. As a result of being trained mainly by their mothers and of lacking a masculine model to imitate, boys tend to be less masculine and less aggressive, more prone to show feminine sex-role preferences, and more likely to engage in noncompetitive play activities than boys who have male models to imitate (17, 24, 41, 75). Later, when they become aware of the cultural expectations of masculine behavior and aware of how far short they fall of these expectations, they try to be "masculine" and, in so doing, often engage in antisocial behavior (150).

Thus, it is apparent that, through a combination of child training and identification, the child learns to behave in a way that is characteristically his, even though it may differ in degree from that of his agemates or even his siblings. As Baumrind has stated, "With varying degrees of consciousness and conscientiousness, parents create their children psychologically as well as physically" (20).

Some personality traits are learned by trial and error. If a child discovers, more by chance than by imitation or direct teaching, that aggressiveness in a certain frustrating situation wins approval from the peer group or satisfies a need, he will repeat the aggressive behavior whenever a similar situation arises. In time, this will develop into his characteristic method of adjusting to frustrations, and he will be known as an "aggressive child."

Not only does the child develop personality traits that serve his needs but he also tries to develop traits that are admired by members of the social group with which he is identified. He discovers that people who have the admired traits win social approval and acceptance, while those who have unadmired traits are criticized, scorned, and rejected.

Furthermore, the child discovers as he grows older that not all people value traits in the same way. Parents, teachers, and other adults value certain traits more highly than members of the peer group, and vice versa. He also discovers that there are sex-approved and social-class-approved traits. In spite of these variations, he learns that certain basic traits are honored by all cultural groups. Honesty, respect for others as people, respect for authority, and a sense of appreciation are universally approved.

As traits develop, they begin to organize into clusters, forming *syndromes*. The child who is reserved, for example, will become shy and somber, while the child who is expressive will become gay and socially at ease. The child who is subjected to strict authoritarian child training develops a rigidity in his characteristic pattern of adjustment or an "authoritarian personality syndrome." He will be inhibited, overcontrolled, introverted, withdrawn, conservative, and conventional; he will be intolerant of change, irregularity, and things not clearly defined; he will be submissive toward authority figures but aggressive toward weak figures; and he will be anxious, guilt-prone, worry-prone, compulsively doubtful, insecure, rigidly moral, and plagued by feelings of inadequacy and inferiority (64). These will color all of his adjustments to life.

Individuality

Each personality pattern is *unique* in that it varies in the combination and organization of the traits that constitute the pattern, in the strength of the different traits, and in the core of the pattern, the self-concept. Bronson has labeled uniqueness of personality as "style of life." According to him, style of life is a complex of attitudes, traits, and attributes which give a characteristic flavor to the person's interactions (33). Allport has referred to individuality as a "never-repeated phenomenon" and has emphasized that the "outstanding characteristic of man is his individuality" (4).

Individuality in personality means differences in *kind,* rather than differences in amount. Within the personality pattern are not only differences in the core but also differences in traits. Some traits may be *common* to large groups of people, such as truthfulness, generosity, and sociability, because they have been developed by similar child-training methods and similar environmental influences. Others are *unique* in that they are not to be found in others; they have developed from unusual combinations of hereditary qualities, personal experiences, and social environments.

Even common traits contain a unique element. As a result, *no two people have exactly the same trait in exactly the same degree.* A child may be generous because generosity is a highly valued trait in the culture in which he grows up. Nevertheless, he will express his generosity in his own individual way, and his expression of it will be influenced by his uniquely developed self-concept. To one child, generosity may be "good business"—a way to "buy popularity"—while to another it may be motivated by a feeling that he owes society something and is repaying his debt by helping those less fortunate than he. This point of view has been emphasized by Allport (4):

> *No two persons ever have precisely the same trait. Though each of two men may be aggressive (or esthetic), the style and range of the aggression (or estheticism) in each case is noticeably different. What else could be expected in view of the unique hereditary endowment, the different developmental history, the never-repeated external influences that determine each personality? The end product of unique determination can never be anything but unique.*

CAUSES OF INDIVIDUALITY

Recognition of individuality goes back at least as far as the ancient Greeks. Hippocrates referred to four different personality "types": The *sanguine,* or quick, active persons; the *choleric,* or strong and easily aroused persons; the *phlegmatic,* or slow and stolid type; and the *melancholic,* or sad and pessimistic individuals. The cause of the differences in personality patterns which gave each type an individuality, according to Hippocrates, was a difference in the strength of the body humors. Thus, according to him, individuality had a physical cause, though there is no evidence that Hippocrates considered this to be due to differences in heredity.

It is now rather generally believed that the foundation of personality comes from the maturation of hereditary traits but that these are influenced partly by learning in connection with direct social contacts and partly by conditioning.

Once a trait has been developed, through environmental influences, it affects not only the individual's behavior but also his interests and attitudes. The trait is thus strengthened and made more resistant to change. In spite of environmental influences, each personality pattern has a tough core, or nucleus, of traits. When this tough core, as Shirley pointed out many years ago, is "coupled with the dynamic forces of growth, it prevents the individual from ever becoming a complete puppet of the forces that play upon him" (148). Because of this inner resistance, the child will react in his own individual manner to the people and things in his environment and will thus increase his individuality.

EARLY APPEARANCE OF INDIVIDUALITY

Even at birth there is a clearly discernible individuality in the infant's characteristic adjustment to his new environment. This individuality is shown in responses to food, in motor activities, and in crying. While individual responses may be due in part to hereditary differences, there is evidence that a disturbed prenatal environment, resulting from the mother's metabolic or emotional processes, may modify the infant's behavior patterns (36, 155, 171). If these behavior patterns interfere with good postnatal adjustments, the infant will seem less "desirable" in the eyes of his parents, and this will affect their attitudes toward him and the way they treat him.

While the personality of the child is not developed at the time of birth, the potential qualities are there. From these a pattern is built up from which the individual never completely escapes. A month or two after birth, the baby begins to respond to other individuals, and his behavior is modified accordingly.

Since no two individuals have the same social environments, even if they have the same physical environments, they tend to exhibit increasingly different personality patterns as they grow older. Among first graders, it has been reported, various personality types can be distinguished. Some children are helpers who can look out for other children; some are leaders who have sufficient initiative to make suggestions and attract followers; some are maternal; some are despotic; some like to joke and make fun of others; some are inveterate show-offs; some are much-loved favorites; and some are solitary and withdrawn (157).

Persistence in Personality

According to popular beliefs, based on the assumption that personality is a hereditary characteristic, personality persists in a relatively unchanged form throughout life. If any change occurs, it is believed, it is likely to be a change for the better in young people and for the worse as people reach middle or old age.

Changes in personality are attributed to physical changes. At puberty, for example, there is the change from the childish to the adult body; as this physical change is regarded as an improvement, the traditional belief holds that there will be an improvement in personality also. By contrast, the physical changes occurring at the time of the climacteric and with advancing age are regarded as forms of deterioration. The personality changes that are believed to accompany them are believed to be changes for the worse.

MEANING OF PERSISTENCE

The term *persistence* means "enduring" and "constantly recurring"; *it does not mean that no change occurs.* It does mean, however, that there is a tendency for certain traits to remain in an unchanged, or relatively unchanged, form, even when training and social pressure have been operative. As Allport has stressed, the "important fact about personality is its relatively enduring and unique organization" (4).

For example, a child who as an infant showed irritability would show the same trait as he grew older, even though his irritability were somewhat modified and toned down as a result of environmental pressures. Likewise, a happy, good-natured child would remain cheerful, even in the face of adversity, if persistence were characteristic of different traits.

While certain personality traits change as the child passes through certain kinds of experiences, Breckenridge and Vincent (31) have explained the persistent nature of the personality pattern in this way:

> *Each personality preserves a central stability, a central core or focus or "center of gravity" which does not change. Some personalities are far more flexible than others, and change radically under radical changes in environment; others have a "granite-like" quality which withstands the impact even of the most radical changes of environment.*

The center of gravity, it thus becomes apparent, leads to stability in the personality in that it preserves a balance of traits within that personality pattern. Once this center of gravity is fixed, it does not change unless radical steps are taken to produce such a change.

In young children, the core of personality is not well established. It can therefore be changed without disturbing the total personality balance. But the personality becomes less flexible as the person grows older, because of the larger and more fixed core of habits and attitudes, and any change will require a great deal of effort and pressure. Also, care will have to be taken to avoid disturbing the personality balance. That persistence has not been well established in the young child is stressed by Davis and Havighurst (48):

> *We do not believe, in short, that the early personality is as irrevocable as the crack of doom. There certainly is no reason for a fatalistic view concerning man's ability to break the mold of his childhood learning. Admittedly, this learning often sets the pattern for many*

later responses toward people; even for one's lifelong estimate of oneself. But new situations and new stimuli will change not only a man's behavior—they will change his belief in himself. Men have been saved from despair, and vice, and from even the deep shadows of insanity by a change in their opportunities, by a chance to work, or to gain social distinction; by finding someone who loved them, and had faith in their ability and courage; by the birth of a son or daughter, and the new responsibility and hope which it brought.

EVIDENCE OF PERSISTENCE

Mention of persistence of personality traits was made in some of the early baby biographies (147, 183). In recent years, genetic studies of groups of children over a period have emphasized the persistence of personality patterns and have shown under what conditions changes occur. They have shown that while traits vary from year to year within a narrow range, they remain fairly consistent (7, 8, 21, 105, 111, 150). There is also evidence from these studies that no child remains *absolutely* consistent with respect to predominant forms of behavior; nor are there any revolutionary changes. On the other hand, shifts are always in the direction of behavior that has been evident earlier, though not in a pronounced form (88, 117, 148).

Because of the traditional belief that marked personality changes occur when the puberty changes take place, it is important to determine whether they actually do occur or not. Genetic studies have shown that, even in late adolescence, some fluctuations in traits do occur but, for the most part, early patterns are maintained. In general, undesirable traits tend to be less undesirable because of the adolescent's strong desire to conform to socially approved patterns (8, 105).

When changes do occur in the personality pattern as a result of environmental conditions, they tend to be persistent. Studies of early- and late-maturing boys show that the personality patterns, influenced by the treatment the boys received from adults and peers because of their physical status at puberty, persisted into the early thirties. Those who matured early were, as young men, responsible, enterprising, sociable, warm, persistent in working toward a goal, self-controlled, dominant, and able to create confidence in others. These characteristics were similar to those they had shown in adolescence. By contrast, the men who matured late were touchy, rebellious, impulsive, self-indulgent, and assertive; they sought encouragement and help until a fuss was made over them whenever they were hurt. In general, their behavior was a carry-over of the "little-boy behavior" of their adolescent years (85).

Studies of maladjusted people reveal that unusual behavior in childhood is often a precursor of personality disturbances in adulthood. Records of patients in mental hospitals show that the personality characteristics of psychotic patients have been stable since childhood. Those who are excitable as adults have been excitable since childhood, and those who are schizophrenic have been apathetic since they were young children. In short, childhood schizophrenics tend to grow up to be adult schizophrenics, although the clinical manifestations and their intensity may change (2, 105, 185).

Children who are problem children often grow up to be juvenile delinquents and adult criminals. Those who are so poorly adjusted that they are problems in school and in the home contribute a disproportionate share to such serious social problems as crime, homicide, and suicide (124, 164).

Many conditions are responsible for persistence in the personality pattern. It is important to know what they are, not only to understand why persistence is so common, but from a practical view, to understand why changing the personality becomes increasingly difficult. Some of the conditions contributing to persistence in the personality pattern are shown in Box 18-2.

SIGNIFICANCE OF PERSISTENCE

Difficult as it is to determine how persistent the personality pattern is and when, how, or how much it can be changed, an understanding of persistence is needed for several practical reasons. The four most significant are described below.

First, if the personality pattern is persistent, good foundations which can guarantee reasonably good adjustment throughout life must be laid early. This can best be achieved by guidance to ensure that a favorable self-concept will be developed and that socially acceptable methods of adjusting to people and situations will be learned and reinforced through repeated experiences. If changes could be made easily as the child grew older or if he automatically outgrew undesirable traits, then this would not be so important. Evidence to date suggests that the early pattern is likely to persist.

Second, symptoms of maladjustment should be recognized and the maladjustments corrected as soon as they appear. Since there is little evidence that changes occur of their own accord or that they will be changes for the better, the sooner they are made, the easier they are and the more likely they are to persist. The same is true of changes in an undesirable concept of self. Unless changes are made in the direction of a more favorable concept, an undesirable self-concept will become so fixed that any attempt to change it later can upset the whole personality structure.

Third, the personality pattern of the child influences the kind of adjustment he makes rather than vice versa. There is substantial evidence that the children who make good adjustments have well-integrated personality patterns in which the core is a stable, realistic self-concept, while those who make poor adjustments have poorly integrated personalities with unstable and unrealistic self-concepts as the centers of gravity.

Fourth, since the personality pattern becomes increasingly stable with the passage of time, it is possible to predict early in childhood what sort of person the child will be as he grows older and what sort of adjustments he will make to life. Because change is not likely to occur of its own accord the child should have help and guidance before it is too late.

Change in Personality

In spite of the traditional belief that personality is hereditary and, therefore, persistent, there is a contradictory popular belief that the child will change his personality as he grows older. As a result, as was explained in Chapter 1, parents often tell themselves that a child who is selfish, for example, will "outgrow" his selfishness. Consequently, they do little or nothing to help him realize what a serious handicap to social adjustment it is. The child may discover this stumbling block by trial and error, or it may be pointed out to him by a teacher or by members of the peer group. Then, if his desire for social acceptance is strong enough, he will try to correct it. He does not "outgrow" selfishness; he tries, instead, to replace it with a more socially approved trait, generosity; this he does *by learning, not by maturation.*

From a practical as well as from a theoretical angle, it is important to know just how much change there actually is and when changes can best be made, should it become apparent that they are needed. The practical aspects of this problem have been stressed thus by Roberts and Fleming (133):

> *To accept the idea that an individual is "born that way" and can do little about his personality characteristics breeds a defeatist attitude. On the other hand, to believe that an individual can make of himself what he will may hold out false hopes of rebirth. Educators and psychologists need, therefore, to know what the possibilities for modification are and at what stages in development modification is most possible. All*

Box 18–2

CONDITIONS CONTRIBUTING TO PERSONALITY PERSISTENCE

Heredity

A trait that is related, either directly or indirectly, to the child's hereditary endowment will be more stable than a trait that has little relationship to heredity.

Child Training

The method of child training and the attitudes of the person who uses it remain relatively stable; this reinforces the child's developing self-concept and his characteristic pattern of adjustment.

Parental Values

Personality traits that parents value highly are reinforced by parental rewards, while traits that are not valued are extinguished by punishment or lack of reward.

Social Environment

Since the child sees himself as others see him, this reinforces his developing self-concept and his characteristic pattern of adjustment. Later changes in social environment may not be adequate to change the personality pattern.

Selective Attention to Social Environment

The child's personality or some dominant trait in it determines the kind of social environment he will select. Through his constant association with people in that environment, his self-concept and characteristic patterns of adjustment will be reinforced.

people working in the field of guidance, whether they be teachers, parents, psychologists, ministers, or counsellors, need to be discriminating about what changes it is sound to work for in helping people solve their personality problems.

MEANING OF CHANGE

To "change" means to "alter" or to "vary"; it does not necessarily mean that the alteration or change will be complete. While change through growth and maturation is characteristic of physique and intelligence, personality is, as Breckenridge and Vincent have said, more "fluid or subject to change through influence of the environment" (31). Changes in personality, however, are more frequent and more pronounced in young children than in older children and adolescents, and very much more frequent than in adults.

Changes in the child's characteristic method of adjusting to people and to situations may suggest that a greater change in his personality pattern has occurred than is actually true. The core of the pattern, the child's self-concept, is relatively stable and changes only when the child perceives changes in the attitudes of significant people toward him. He may modify his behavior in response to social pressures, however, in the hope of winning greater social approval or of avoiding social disapproval.

An egocentric child, for example, may discover that stinginess leads to social rejection. He may, as a result, feel that it is a good policy to be generous when generosity counts—at times when it will win the approval and favor of the peer group. With his siblings, parents, and relatives, he may continue to be selfish and stingy because he can count on their acceptance and does not have to buy it with generosity. Under stress, he will revert to his real pattern of adjustment, showing his stinginess even with members of the peer group. Thus the change from stinginess to generosity was not real but only apparent.

Changes in personality do not occur spontaneously. Furthermore, when changes do occur, they do so gradually. Sudden changes in personality are one of the criteria used to diagnose mental illness; they are not characteristically found among normal people. Personality changes may be due to one factor, but usually they are brought about by the interaction of two or more factors. In Box 18–3 are given the most important conditions that contribute to personality change.

CAUTIONS IN PERSONALITY CHANGE

In every personality, Thompson has written, there is a "point of fixity beyond which change cannot be effected" (168). While the personality can be changed, it cannot be changed beyond certain limits without upsetting the balance of the entire pattern. These limits of change may vary from one person to another and from one age to another in the same person, but the limit exists and must be recognized if disturbance to the entire pattern is to be avoided. Furthermore, some areas of the personality are more easily changed than others, and some may be so rigid that change is impossible. These differences in flexibility come partly as a result of increasing age and partly as a result of life experiences.

Some children are more susceptible to guidance and more responsive to efforts to change their personality patterns than others. A child who is a voluntary isolate, for example, may prefer to be so because he has not found congeniality in the children available for him to associate with. Resistance to being changed into a social person does not necessarily mean that he will develop into a maladjusted adult; independence will not, per se, make one an unsocial outcast.

Changing one or two personality traits that are a distinct social handicap to the child is one thing, but trying to revamp the entire pattern is quite a different story. As Breckenridge and Vincent (31) have warned:

> *The very stability of a central core of personality around which habits and attitudes achieve a working balance in any given personality proves to be the reason we cannot, or should not try to make over basic traits in any personality unless we have the help of highly trained specialists. To change any basic trait without due regard to the other traits, habits, and attitudes which balance this trait may be to invite disaster through a serious disturbance in the total personality balance. . . . Apparently, while the core of stability of "the integration center" is still in the early stages of formation, much in the way of change or moulding is possible without disturbance to the general balance. Even so, it is not wise to force any child into a preconceived pattern. Even very young children seem to have a certain physiologic and psychologic constitution which can be forced only so far from its original pattern without producing stresses and strains which shatter the mechanism.*

Some Important Personality Determinants

Some of the determinants of personality have their greatest effect on the core of the personality pattern, the self-concept, and some on the traits related to the core. No determinant, however, affects just one part of the personality pattern. For example, a physical defect affects not only the child's characteristic pattern of adjustment to life but also the core of his personality pattern; it influences the child's concept of himself as a person in comparison with other members of the peer group.

How much influence different factors will have on the personality development of the child will depend to a large extent upon the child's *ability to understand the significance of the factors in relation to himself.* His concept of self is influenced by his comprehension of the attitude of the social group toward him. If his appearance is such that others admire it, appearance will be a favorable factor in his personality development. But if he is aware that his peers do not admire his looks, appearance will be a liability in his personality pattern.

The analysis of the determinants of personality in the following pages covers only those which most commonly affect American children today. Figure 18-2 shows some of the determinants that influence the child's self-concept and, through it, his characteristic pattern of adjustment.

EARLY EXPERIENCES

The importance of early experiences to personality development was first stressed by Freud, who found that many of his adult patients had had unhappy childhood experiences. Many students of personality now claim that persons subjected to undue thwartings during their early years regress to infantile modes of behavior, turn their interests from outer to inner spheres, and become self-centered and reflective rather than expressive.

Early childhood experiences and the memory of these experiences are highly influential because they leave an indelible impression on the child's self-concept. There is, however, no convincing evidence that the individual's personality reflects the kind of care he had during babyhood. That is, there is no definite evidence that breast feeding or late toilet training is better than bottle feeding or early toilet training so far as the personality pattern is concerned. Nor is there any definite evidence that the effects of these early experiences carry into the adult years.

On the other hand, there is ample evidence that the attitude and emotional reactions of the mother, the total cultural context of the environment in which the child grows up, and other factors in the child's total experience are of great importance in determining the pattern of his personality. Only when the mother's attitudes make the child feel anxious and guilty in relation to training or eating will there be any real effect on his personality (20, 21, 130, 141).

Box 18-3

CONDITIONS CONTRIBUTING TO PERSONALITY CHANGE

Physical Changes

Physical changes, resulting from maturation, structural disturbances in the brain, organic disorders, endocrine disorders, injuries, malnutrition, drugs, or illness, are often accompanied by personality changes. The effects are mainly on the child's self-concept.

Environmental Changes

Whether environmental changes will improve the child's personality will depend on whether the changes improve his status and whether he moves toward equilibrium with the environment. If he is out of focus with his environment or feels that his status in it is unfavorable, he will be more damaged than helped by the change.

Social Pressures

The stronger the child's drive for social acceptance, the more he will try to develop personality traits that conform to socially approved patterns.

Professional Help

Psychotherapy helps the child develop a more favorable self-concept by helping him gain insight into the causes of his poor self-concept and by helping him change it to a more favorable one.

Role Changes

Change from a subordinate to an egalitarian or leadership role in the home, school, or neighborhood will improve the child's self-concept. A change in the reverse order will damage it.

CULTURAL INFLUENCES

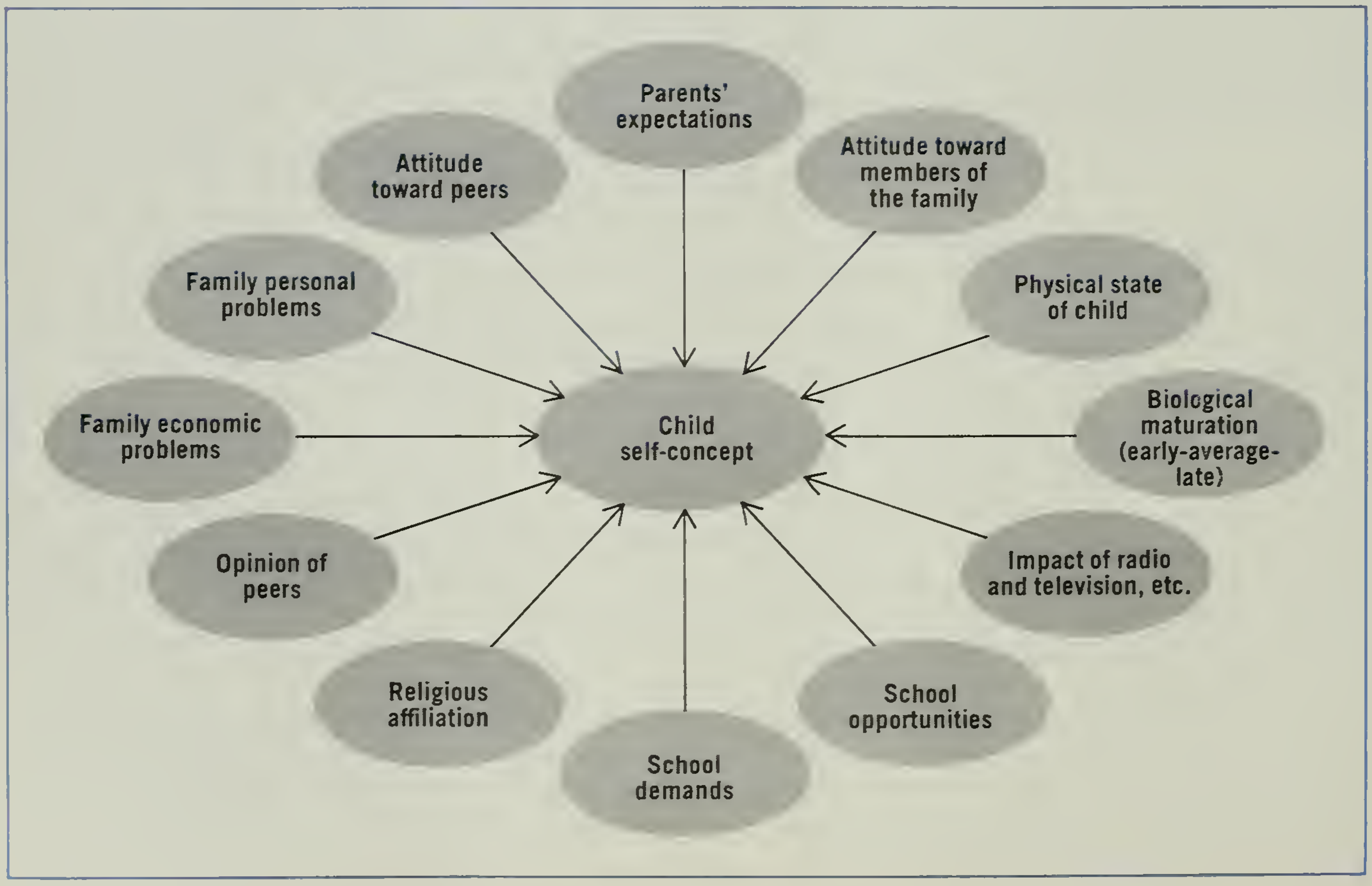
It has been said that you can take a child away from his culture but you cannot take the culture away from the child. In every culture, children are subjected to pressure to develop a personality pattern that will conform to the standards set by the culture.

In America, there are three kinds of cultural systems: the *general American* culture, *social-class* cultures, and *ethnic-group* cultures. Each has its own approved personality pattern. As a result, every social class and every cultural group produces a different basic personality. The *basic personality* is the organization of the drives and emotions of the individual, the deeper-lying parts of mental behavior.

The cultural group to which the child's parents belong sets the pattern for this basic personality, and because of his early training, the child is disposed to adopt this pattern. The way the child is brought up is thus responsible for the kind of personality he develops. Later, pressures from the school and the peer group supplement family pressures. From all these, the child learns to behave in a socially approved way in his culture and to have attitudes that are sex appropriate.

Cultural values are reflected in the training of the child, and through this medium they leave their mark on his personality. French children, for example, are trained to be family-oriented; consequently, they develop a personality pattern characterized by loyalty, cooperation, self-sacrifice, and often an unrealistic concept of themselves and of their roles in life. By contrast, American children become egocentric, more realistic, concerned about their independence and rights, and more anxious to help themselves than others. Thus it is apparent, as Stendler has pointed out, that "as cultures differ, so do the personalities embedded in these cultures" (159).

Figure 18-2. The impact of environmental influences on the developing self-concept in childhood. (Adapted from L. D. Crow and A. Crow: Child development and adjustment. *Macmillan, 1962. Used by permission.)*


Parents' expectations
Attitude toward peers
Attitude toward members of the family
Family personal problems
Physical state of child
Family economic problems
Child self-concept
Biological maturation (early-average-late)
Opinion of peers
Impact of radio and television, etc.
Religious affiliation
School opportunities
School demands

PHYSIQUE

Physique influences personality both directly and indirectly. *Directly* it determines what the child can or cannot do. *Indirectly*, it determines how the child feels about his body. This, in turn, is influenced by how significant people in his life feel about it. The child who is markedly overweight, for example, will not be affected by his obesity until he becomes aware that people regard it as ugly. Shaffer and Shoben (145) have written:

> *A puny boy is likely to develop different preferred mechanisms than a strong, healthy child, because he has different experiences. Anxiety provoked by threatening diseases or disabling symptoms may lead to defensive or nonadjustive behavior. In such cases, a person's structure of physiology frustrates his motives, creates conflicts, and shapes the experiences through which he learns his adjustments. The precipitating events are physiological but the adjustive process is psychological.*

Every cultural group has its own standards of what is "right" or appropriate for boys and girls. Extremes are regarded as "wrong." If a short, frail boy is in a group of children of his own size and build, size will have no effect on his concept of self. Only when the variation from the *norm of his own group* is great enough to be noticed by others will it affect him.

At an early age, children become aware of any deviation from the group norm because of the effect it has on their social relationships. Nicknames that imply physical differences, such as "Fatty" or "Skinny," show how other children feel about these differences. Being different makes the child feel inadequate, and thus affects his personality. Boys with well-proportioned bodies have been found to have well-adjusted personality patterns; by contrast, boys with physically inferior bodies develop some compensatory form of behavior, such as showing off, which interferes with good social adjustments (12, 87, 97, 132).

Even though fat may be only temporary, the fat child becomes self-conscious, timid, retiring, slow, awkward, and incapable of maintaining a secure status among his peers. He is often at the mercy of more active children who tease and bully him. And if he cannot engage in active play with others, he becomes increasingly unsocial, more dependent on his mother, and thus immature for his age.

PHYSICAL CONDITION

Not only does good health enable the child to engage in all the normal activities of his age group, but it also has a favorable influence on personality. The attitude of the family and the social group is much more favorable toward a healthy child than toward a sickly one, and this is certain to have an effect on his behavior. The child who is delicate and sickly comes to expect the consideration from others that he has been used to at home. He withdraws from the activities of other children and becomes overdependent on his parents.

Studies of the effect of physical conditions on personality reveal how pervading they are. Box 18–4 lists some of the most common physical conditions that influence personality in childhood.

INTELLIGENCE

Except when there is a marked deviation from the norm, young children are not aware of what their intellectual level is. The bright, for example, do not realize how bright they are, the dull are unaware of their dullness, and the average take their intelligence for granted. After they enter school, children measure their level of intellectual development by the kind of adjustment they make to schoolwork.

How a child feels about being intellectually different is greatly influenced by social attitudes, especially those of parents, teachers, and members of the peer group. Attitudes toward *brightness*, for example, differ from one school to another and, within a school, according to whether the bright children are popular or unpopular. The more superior the intelligence of the child, the less favorable the social attitude. A very bright child is often regarded as a "threat" by his peers; he may raise the standard of work in the class and make the teacher expect more of all the students. In addition, children of average intelligence feel uncomfortable when with a very bright child because they seem "stupid" by comparison. And as the cultural stereotype maintains that very bright people are "odd," there is a tendency to be hypercritical or suspicious of everything the very bright child says or does.

Awareness of the fact that they are considered "different" makes very bright children uneasy in the presence of the peer group. This, in turn, makes them feel inadequate in their social relationships and reinforces the popular belief.

A child whose intelligence is definitely *below* that of other children of the same age finds himself an outsider. His interests are different from theirs, and he soon develops feelings of inadequacy. Because of his narrow social experiences, the dull child has poor social insight as well as poor self-insight. This limitation further impairs his social adjustments and adds to his social rejection. Fortunately, dullness does not damage the personality as much as one might anticipate, because dull children lack the social insight to realize how unfavorable social attitudes toward them are.

Box 18–4

PHYSICAL CONDITIONS AFFECTING PERSONALITY

Fatigue

Fatigue causes the child to be irritable and quarrelsome, thus affecting his reactions to people and theirs to him.

Malnutrition

Malnutrition results in a low energy level which is shown in shyness, irritability, depression, and unsocial behavior.

Irritating Physical Condition

A physical irritation, such as hives or eczema, leads to emotional overreactions.

Chronic Disease

Such chronic diseases as allergies and diabetes cause emotional instability, strong negative emotions, and emotional dependence on family members.

Physical Defects

The effect of a physical defect on personality depends upon how much it limits activities and how other people react to it. The more different the defect makes the child feel, the greater his sense of inferiority, inadequacy, and martyrdom.

Endocrine Glands

Of all the glands in the endocrine system, the thyroids have the greatest effect on personality. A hyperthyroid condition makes the child nervous, excited, jumpy, restless, and overactive. A hypothyroid condition makes him lethargic, unresponsive, depressed, dissatisfied, and distrustful.

EMOTIONS

Frequent, intense, and apparently unjustified emotional outbursts lead others to judge the individual as "immature." Suppression of emotional expressions results in moodiness, which makes the individual rude, uncooperative, and preoccupied with self. Heightened emotionality, even when the expressions are controlled, tends to make one nervous and ill at ease; it is often accompanied by specific mannerisms, such as nail-biting or giggling, which create the impression that the person is silly or immature.

People tend to judge a child favorably when he keeps his emotions under control. They also consider some forms of emotional expression more acceptable than others. "Picking on others," for example, is less acceptable than moodiness, just as generalized jitteriness is less readily tolerated than a nervous mannerism.

How the child's emotions affect his concept of self is thus greatly influenced by how they affect other people. The direct effect of emotions on personality, however, though often less noticeable than the effect they have on other people, should not be overlooked. When emotions are so strong that the child's behavior becomes disorganized, they will adversely affect his characteristic patterns of adjustment.

THE CHILD'S NAME

A name, per se, has little or no influence on the self-concept. Its influence is felt only when the child realizes how it affects the attitudes of significant people in his life. When the child starts to play with other children, around the third year, he begins to see how important his name is. Each year thereafter, the effect his name has on his self-concept increases.

Unquestionably, the name by which a child is called will color the first judgments others make of him. If his name elicits pleasant associations in the minds of others, they will treat him well, and this will have a good effect on his self-concept. If it elicits unfavorable first impressions, the treatment the child receives from others will be less pleasant, and, as a result, he will develop an unfavorable self-concept.

The effects of the child's name do not end with first impressions. Instead, it affects all social reactions to him. As Murphy has said, the child's name can be either a psychological asset or a psychological liability (116). Hartman et al. (73) have emphasized how great a psychological liability a name that calls forth unpleasant associations in the minds of others may be in the child's social relationships:

A child's name, like his somatotype, is generally a settled affair when his first breath is drawn, and his future personality must then grow within its shadow. A powerful mesomorphic boy must experience a different world from his puny counterpart; and, similarly, a boy who answers to a unique, peculiar, or feminine name may well have experiences and feelings in growing up that are quite unknown to John or William. One would expect these different childhood experiences to be reflected in the subsequent personality. It is plausible, and confirmed by clinic experience, to assume also that some individuals are seriously affected in their adjustment as a result of a peculiar name.

As was pointed out in the discussion of the child's interest in his name, in Chapter 16, the child has reasons for liking or disliking his name. His attitude toward it is emotionally weighted, because it reflects the reactions of others—or what he *believes* their reactions are. That is why, as Murphy has explained, the child's name may be a source "of exaggerated pride or exaggerated shame" (116).

Not only the child's real name but also any nickname or term of endearment that his parents or relatives use will affect his personality. Among elementary school children, a definite correlation has been found between the children's liking for their names and their self-acceptance (25). The effect of a nickname, as of the real name, depends upon how the child interprets its use and acceptance by others. The possible unfavorable effect is so great, however, that one must agree with Habbe that "Fortunate is the boy whose name and/or personal characteristics do not suggest humorous, bizarre nicknames to the imaginative minds of his peers" (72).

The potentially damaging effect of both names and nicknames on the developing self-concept of the child is clear. Allen et al. are justified in saying that "an unfortunate selection may doom him to recurring embarrassment or even unhappiness" (1). McDavid and Harari have added a warning that a "parent might appropriately think twice before naming his offspring for Great Aunt Sophronia" (107).

SUCCESS AND FAILURE

The child's concept of self is greatly influenced by whether he regards himself as a success or failure. He may be a "success" in the eyes of others but a "failure" in his own eyes. *A person who is objectively a success can be, subjectively, a failure.* This means that, by objective standards, the person's achievements come up to the expectations of others while, by his own standards, they fall short.

How the child reacts to what he regards as his successes and failures will influence his personal and social adjustments and affect his self-concept. While different children react differently to success and failure, it has been reported that there are certain common reactions among all children (59, 89, 108, 111, 142, 187). These are shown in Box 18–5. In general, reactions to failure are more varied than reactions to success.

Failure not only damages the self-concept, but encourages the development of patterns of behavior that are harmful to personal and social adjustments. These harmful effects come from the child's realization of the unfavorable evaluations of others as well as from his own self-evaluations.

By contrast, success leads to a favorable self-concept which, in turn, leads to good personal adjustment and favorable social evaluations, which contribute heavily to good future adjustment. However, it cannot be assumed that the more success the child has, the more favorable the effects on his personality.

As shown in Box 18–5, if success is too easy and too frequent, the good effects which harder-won success brings will be lost. For that reason, the child's environment should be controlled so that this will not happen. Control of the environment should take two forms. *First,* failure should be avoided, if possible, in the early years while the child's self-concept is in the formative stage. If the child does experience failure at this time, control of the environment should make it possible for him to achieve several successes immediately after the failure so as to wipe out some of the psychological damage of the failure before it undermines his self-confidence. *Second,* severe failures that undermine the child's self-confidence should be avoided. When this is impossible, some of the psychological damage of the failure can be counteracted by explaining to the child why he failed, by avoiding all suggestion that he is to blame for it, and by following the failure as quickly as possible with successes great enough to convince the child that he is not a "failure."

SOCIAL ACCEPTANCE

Social acceptance influences the child's desire to develop socially approved personality traits. It also affects his self-concept. Since the young child is anxious to have the approval of his parents, he tries to develop personality *traits* that will please them. After he enters school, the approval of his peers becomes more important, and he tries to develop traits which his playmates admire, even though they may not be admired by his parents.

In the absence of guidance, many children learn by trial and error to adjust in a manner that brings them temporary attention—which they often mistake for approval—but that later leads to social disapproval. The child who "cuts up" in class or who teases a smaller age-mate may find himself the center of attention, which he equates with approval. Under such conditions, he repeats the act until it becomes a well-developed personality trait.

Social acceptance plays a large role in the development of the *self-concept.* Children who are accepted in the social group or who from time to time fill positions of leadership develop self-confidence and poise. Children who are friendly and self-confident, in turn, win more friends; as their popularity increases, their poise, self-assurance, and leadership qualities also grow stronger.

By contrast, unpopular children feel inferior; they are envious of their more popular age-mates; they resent being left out of the play activities their age-mates enjoy; and they are sullen, irritable, and ready

Box 18-5

EFFECTS OF SUCCESS AND FAILURE

Success

- Makes the child proud and self-satisfied
- If too easy and too frequent, makes the child conceited and arrogant
- Makes the child satisfied with his achievements
- Increases the child's motivation and efforts for future successes
- If too easy and too frequent, decreases motivation and effort
- Makes the child willing to help others
- Encourages the child to seek new challenges
- Encourages the child to be boastful
- Encourages the child to be independent of help
- Helps to build up self-confidence
- If too easy and too frequent, leads to overconfidence and inability to face stiff competition later
- Makes the child cheerful and happy

Failure

- Encourages the child to lower his aspirations to realistic levels
- Makes the child unsure of his abilities
- Contributes to feelings of inadequacy and inferiority
- If frequent or severe, leads to a "failure complex"
- Makes the impulsive child more cautious
- Makes the child embarrassed and self-conscious
- Encourages the child to seek advice and help
- Encourages the child to shun future threat situations
- Weakens the child's motivation and willingness to expend effort
- Encourages the child to rationalize the cause of the failure
- Encourages the child to project the blame for failure onto others
- Is often expressed in angry outbursts and destruction of property
- Makes the child gloomy, depressed, and unhappy

to fly off the handle at the slightest provocation. Many feel that they are being martyred by their age-mates. These reactions, naturally, do not help them to develop the personality traits that will improve their acceptance.

Children who enjoy marginal acceptance, the "fringers," or those who hope to improve their acceptance, the "climbers," show a degree of tension and often seemed awed. They acquiesce to the popular children, try to impress them by showing off or boasting, or they agree impetuously with whatever they suggest. The child who is overlooked or ignored by his age-mates, the "neglectee," resents the treatment he receives, feels martyred, and often develops a resentful attitude not only toward those who neglect him but toward people in general. In addition, he often withdraws from all social contacts and develops the shut-in characteristics of the introvert. Refer to Chapter 11 for a more detailed discussion of levels of social acceptance.

STATUS SYMBOLS

A child learns early in his peer relationships that status symbols influence one's social acceptance. Before status symbols can affect the personality through their effect on the self-concept, however, the child must become aware of the symbols that are valued by the group and must realize that he is judged in terms of the status symbols he or his family possesses.

Of all the status symbols that are of interest to children (refer to Chap. 16), none has a more important effect on personality than clothes. Children's clothes are an ever-present manifestation of their status. Not only do clothes tell, indirectly, the socioeconomic status of the family, but they tell, directly, the status of children in the peer group.

The child whose family is able to provide the clothes and material possessions that give him prestige in the peer group usually develops a better self-concept and thus a more wholesome personality than the child whose parents cannot make such provisions for him. If a child fails to gain social acceptance, he is likely to project the blame onto his father, who has not provided him the status symbols that the peer group values. He complains about his own lot, envies the lot of others, and tells others how lucky they are. The child's self-pity makes others uncomfortable and makes the child himself unhappy.

Some children defensively criticize or ridicule what others have. The child who uses this defense mechanism develops an unwholesome self-concept, and behaves in a manner that will ensure poor social acceptance. Thus, he damages his personality both directly and indirectly.

SCHOOL INFLUENCES

The school influences the child's developing personality both in the area of traits and in formation of the self-concept. A careful study of the major areas of influence, given in Box 18–6 will reveal the direct and indirect importance of the teacher. Her influence on the child's personality is second only to that of the parents, just as the influence of the schoolroom is second only to that of the home (74, 154).

Because of the profound influence the teacher has on personality development, the teacher's own personality is more important in this area than her knowledge or teaching skills. A well-adjusted teacher, for example, is usually warm and acceptant in her attitudes toward her pupils. As a result, she not only motivates them to do good work and to conform to the rules and regulations of the school but she also helps them to develop both favorable and realistic self-concepts.

A poorly adjusted teacher, by contrast, sets a model of poorly adjusted behavior which many pupils imitate. She also deals with the school situation and with the pupils in such a way that they feel inadequate, resentful, and antagonistic not only toward her but, in time, toward all in authority. Any undesirable "homegrown" personality traits in the children are likely to become more and more persistent if the teacher is unable to provide responsible help and guidance.

Maladjusted teachers do not *always* foster poor adjustments in their pupils. Sometimes a teacher who has experienced maladjustments herself can better understand and sympathize with pupils who are having difficulties than well-adjusted teachers. However, it is important to recognize that the personality pattern of the teacher does influence the children under her care. Therefore, the chances of a child developing a healthy personality will be greatly increased if his teacher is a well-adjusted person.

FAMILY INFLUENCES

Of all personality determinants, the family is the most important. There are a number of reasons why: The family is the first social group with which the child is identified; the child spends more time with the family group than with any other social group; family members are the most significant people in the child's life during the years when the foundations of his personality are being laid; and the areas of family influence are broader than those of any other personality determinant, even the school. Of the many areas of family life and family relationships which influence the child's personality, the following are the most significant.

Parental Attitudes toward the Child. Parental attitudes that favor the development of a well-adjusted personality are characterized by understanding, love, and interest in the child as an individual. Parental attitudes that hamper personality development are marked by lack of emotional warmth, rejection in such subtle forms as criticism and hostility submerged under a cloak of insincere care and affection, favoritism toward a sibling, and a high degree of behavioral control (58, 126).

How the child *perceives* his parents' attitudes is more important than the attitudes themselves. A child who perceives himself as accepted shows greater ego strength, more realistic aspirations, more tenacity, and greater independence from parents than one who feels rejected.

Emotional Climate of the Home. The emotional climate of the home is determined largely by the parents. Homes characterized by friction and discord, lack of affectional relations, lack of parental interest in the child, and breaks due to separation, death, or divorce lead to emotional instability and poor

Box 18–6

SCHOOL INFLUENCES ON PERSONALITY

Emotional Climate of the Classroom

A healthy emotional climate makes the child relaxed, cooperative, happy, and motivated to study and to conform to rules. An unhealthy emotional climate makes the child tense, nervous, irritable, quarrelsome, hypercritical, disinterested in studying and prone to troublesome behavior. The emotional climate is due mainly to the teacher's attitudes toward her work and her pupils, the kind of discipline used, and the teacher's efforts to make schoolwork interesting and stimulating.

The Teacher

Directly, the teacher affects the child's self-concept by her attitude toward his academic work and his school behavior and her interest in him as a person. Indirectly, her influence comes from helping him to develop socially approved patterns of adjustment.

Discipline

The discipline used in the school affects the child's attitudes and behavior. Authoritarian discipline makes the child tense, nervous, resentful, and antagonistic; permissive discipline leads to lack of responsibility, lack of respect for authority, and egocentrism; democratic discipline gives the child a feeling of self-worth and encourages him to be happy, relaxed, cooperative, trustworthy, and fair.

Transmitter of Cultural Values

The school is more important than the home in seeing to it that the child accepts the cultural values as a price for social acceptance.

Favoritism

The teacher's favorite becomes conceited, arrogant, and self-centered. Nonfavorites become resentful, antagonistic, troublesome, hypercritical of school, and plagued by feelings of martyrdom.

Academic Achievement

Grade placement—whether in a "slow" or "fast" section—promotion, and marks are the criteria by which the child assesses his academic achievement. Success is ego-bolstering; failure is ego-deflating.

Social Achievement

The child measures his social achievement in terms of social acceptance and the holding of leadership roles. The more value the school places on extracurricular achievements, the more influence these criteria of achievement have on the child's self-concept.

adjustments on the child's part. Figure 18–3 shows the long-term effects of the death of a father or mother on the child's personality.

By contrast, a pattern of homelife in which family members are companionable, where cooperative and democratic relations exist, and where attempts are made to meet the needs of the child favors the development of a well-adjusted personality. This type of home provides the affectional relationships every child needs with his parents and siblings.

The influence of the home climate on the child's developing personality depends to some extent upon the child himself. A child who is nervous and tense, for example, will be more upset by the attention given to a new baby than a child of a more phlegmatic disposition. Similarly, a healthy child will react very differently to the attention and pampering he receives as the "baby" of the family or to bickering and quarreling between his parents than a delicate, sickly child.

The influence of the home climate on personality development has been expressed in the following way by an anonymous writer:

- *If a child lives with criticism, he learns to condemn.*
- *If he lives with hostility, he learns to fight.*
- *If he lives with fear, he learns to be apprehensive.*
- *If he lives with pity, he learns to feel sorry for himself.*
- *If he lives with tolerance, he learns to be patient.*
- *If he lives with jealousy, he learns to feel guilty.*
- *If he lives with ridicule, he learns to be shy.*
- *If he lives with shame, he learns to be ashamed of himself.*
- *If he lives with encouragement, he learns to be confident.*
- *If he lives with praise, he learns to be appreciative.*
- *If he lives with acceptance, he learns to love.*
- *If he lives with approval, he learns to like himself.*
- *If he lives with recognition, he learns to have a goal.*
- *If he lives with fairness, he learns to value justice.*
- *If he lives with honesty, he learns to value truth.*
- *If he lives with security, he learns to have faith in himself and others.*

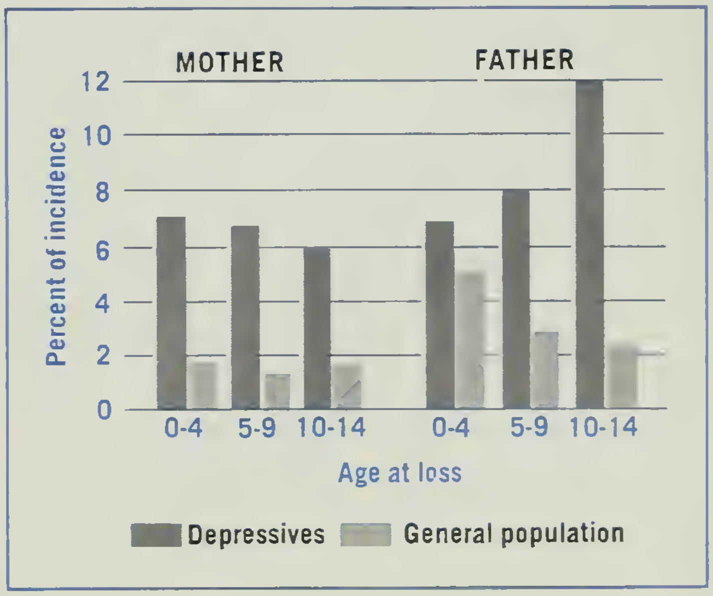
Transmitter of Cultural Values. Either from training or from identification with and imitation of a parent, the child develops personality traits that will affect his social and personal adjustments. If training is consistent and fairly applied, it will lead to good adjustments; if it is inconsistent or applied in an authoritarian or ultrapermissive way, it will encourge maladjustments.

That children imitate the parent they identify with is seen in the fact that the personality pattern of both boys and girls in early childhood more closely resembles that of the mother than the father, owing to the more constant contacts with the mother (21, 33, 141).

Socioeconomic Status of the Family. Socioeconomic status affects the child's developing personality both directly and indirectly: *directly* because it determines the social-class standards the parents accept and the child-training methods they use, and *indirectly* because it determines where and how the family will live. The physical environment of the home, including such factors as size, neighborhood, and general condition of the furnishings, has little influence, per se, on the child's personality. The type of home and the neighborhood in which it is located do influence parental attitudes, however, and thus affect the child.

Minority or Majority Group Status of the Family. Children whose families have a majority group status often become conceited and cocky in their prejudiced attitudes toward peers who belong to minor-

Figure 18–3. The long-term effects of loss by death of mother or father during the childhood years. (Adapted from J. Bowlby, Childhood mourning and its implications for psychiatry, Amer. J. Psychiat., *1961,* **118**, *481–498. Used by permission.)*



ity groups. Those whose families have a minority group status often develop feelings of inadequacy and inferiority, resentful attitudes toward society, and many forms of compensatory behavior that further increase the discrimination against them. By the time Jewish children reach adolescence, for example, some have responded by developing personality patterns that include aggressiveness, destructiveness, strong rebellion, and derogatory attitudes toward other groups. Children of the Amish faith, it has been reported, make poor social adjustments because they feel that they do not "belong," that other children are mean to them, and that they do not have as much fun as other children (37).

Family Size. According to tradition, an only child may be characterized in one of two ways: first, the spoiled, egocentric, and antisocial child, commonly known as a "brat," and second, the withdrawn, sensitive, nervous child who is overdependent on his parents and shrinks from social contacts. Neither child is considered well adjusted. Today, the home setting is regarded as a major determinant of whether an only child will be handicapped in personality development. Although only children develop a personality pattern distinctly different from that of children with siblings, there is no conclusive evidence that they make poorer personal or social adjustments (110).

Even though children from small and medium-sized homes are often plagued with sibling rivalries and jealousies, parental overprotectiveness, and suspicions of parental favoritism, they generally make better adjustments to life and are happier than children from large families (42, 47). Children from large families are less likely to be emotionally disturbed or to exhibit as much problem behavior as children from small families. Although the large family may not provide economic security, it does, as Bossard and Boll have pointed out, provide the child with five conditions that make for emotional security: someone to turn to if he does not get enough attention and understanding from harried or indifferent parents; better understanding of his problems by siblings than he could get from his parents; better teaching from siblings than from parents; little jealousy because there is little opportunity for emotional coddling; and little overdependency (27). Not all children from large families, however, experience feelings of security, nor are all well adjusted. However, when poor adjustment occurs among children from large families, it is generally traceable to specific conditions within the pattern of family life of that particular family. The parents may be autocratic and domineering; a child may feel exploited, as when the firstborn girl is expected to take care of younger siblings; a younger child may be spoiled or overdominated by an older sibling; or health problems may result from inadequate food or lack of proper medical attention. Adjustment thus depends *not on the size of the family per se but on the kind* of family it is.

Ordinal Position. Birth order, whether the child is first, middle, or last, has a definite effect on his personality development. Studies reveal certain syndromes or clusters of traits that are characteristically found among children of different birth order. Among other things, these syndromes are a product of parental treatment and attitudes, the roles children of different birth order are assigned to play, and attitudes of siblings and other relatives. There is no evidence whatever that the traits are hereditary (22, 40, 103, 119, 138). Box 18-7 gives the typical but by no means universal personality syndromes of children of different ordinal positions.

As Box 18-7 indicates, *no* ordinal position can be regarded as *best.* The firstborn child has more guidance and help in his development than later-born children, but more is expected of him. Altus has commented that, "the dice are loaded in favor of the first-born" (5). Because of parental pressures on him to achieve, he usually achieves more than later-born siblings, but this does not mean that he is necessarily happier or better adjusted. In addition, the firstborn usually conforms more closely to social expectations, and this means that he tends to be better accepted and more likely to play leadership roles (104). If later-born children were given the same guidance and attention as the firstborn, they would probably achieve as much and be as well accepted socially.

Ordinal position affects the personalities of twins as well as singletons. Twins who are firstborn, it has been reported, develop personality characteristics similar to those of firstborn singletons. How twinship affects personality will depend largely on whether the children want to be identified as twins or not. If they feel that being twins has attention value, they will like being treated as twins, and the effects on their personalities will be favorable: if they resent the identification, the effects will be unfavorable.

However, when twins are constantly thrown together, they usually become self-sufficient and socially withdrawn, thus making them somewhat hostile and antisocial in their attitudes and behavior (27,144).

Level of Adjustment

The term "adjustment" refers to the extent to which an individual's personality functions efficiently in the world of other people. Studies reveal that certain patterns of behavior are characteristically associated with well-adjusted children and others with poorly adjusted children. A brief survey will show how these patterns differ.

WELL-ADJUSTED PERSONALITIES

The well-adjusted child enjoys a kind of "inner harmony"; he is at peace with himself, just as he is at peace with others (14). A well-adjusted child, regardless of occasional setbacks and disappointments, will continue to strive for the goals he has set for himself. He does so because his goals meet needs in his life, not because they have been imposed on him by someone else or set to match those of the crowd. A well-adjusted child will modify his goals when it becomes apparent to him that they are unrealistically high.

Well-adjusted children make good social adjustments and have harmonious relationships with the people with whom they are associated. They accept themselves and thus do not need to build up defenses or project onto others the blame for the discrepancy between what they are and what they would like to be. In describing the child who makes the best adjustments to others, Barrett-Lennard has pointed out that he "genuinely appreciates and values others as he does himself. He is comfortable and open with them because he is comfortable and open with himself. He is not guarded in a personal sense because he has nothing to hide. He does not distort himself to please others, nor does he use them as scapegoats for self-dissatisfaction" (19).

Lawton has proposed twenty characteristics which can be used to describe and assess well-adjusted people—characteristics that are as important in childhood as in adulthood (96). These characteristics, which vary according to age and ability, are given in Box 18–8.

PERSONALITY MALADJUSTMENTS

A child who makes poor personal and social adjustments is labeled a "maladjusted person." He is frequently called a "problem child." There are two major kinds of personality maladjustment: The *first* involves behavior which is satisfying to the child but is socially unacceptable, while the *second* involves behavior which is socially acceptable but is a source of continuous, excessive, and disturbing conflict to the child. The child's behavior, whatever it is, will depend on his own personality pattern and the level of adjustment he has attained.

Danger Signals of Maladjustment. A number of personality traits of an undesirable sort appear in a mild form in all children. At first, they appear to be harmless and are frequently allowed to persist,

Box 18–7

TYPICAL ORDINAL-POSITION PERSONALITY SYNDROMES

The Firstborn Child

Uncertainty, mistrustfulness, insecurity, shrewdness, stinginess, dependency, responsibility, authoritarianism, jealousy, conservatism, lack of dominance and aggressiveness, suggestibility, excitability, sensitiveness, timidity, introversion. strong achievement drive, need for affiliation, petulant, spoiled, and prone to behavior disorders

The Second Child

Independence, aggressiveness, extroversion, fun-loving, gregarious, adventuresome, dependable, well adjusted

The Middle Child

Aggressiveness, easily distracted, craves demonstrations of affection, jealousy, plagued by feelings of parental neglect, inferiority, and inadequacy, and prone to behavior disorders

The Last Child

Secure, confident, spontaneous, good-natured, generous, spoiled, immature, extroverted, ability to empathize, feelings of inadequacy and inferiority. resentments against older siblings, envy and jealousy, irresponsible, and happy without any real effort to overcome them. No single trait is enough to cause alarm when viewed by itself. When several are observable in the same child, however, and when they seem to fit into a maladjustive "personality picture," or syndrome, they are significant and may be regarded as "danger signals" of future trouble. Most children, for example, fidget. Only if their fidgeting is accompanied by other symptoms of maladjustment, however, such as inability to concentrate, impatience, impulsivity, clowning, or unruliness—the "hyperactive-child syndrome"—is it symptomatic of poor personal and social adjustment (161). Figure 18–4 shows some of the characteristic traits on the hyperactive-child syndrome.

In Box 18–9 are given some of the most common and most serious danger signals of maladjustment in childhood (29, 34, 40, 82, 127, 158). Although one trait is not necessarily a sympton of trouble, it should not be overlooked; nor should one assume that the child will automatically outgrow it. Instead, it should be regarded as a fever when otherwise a child seems to be well. It means that unless remedial steps are taken, trouble may break out into the open.

Two specific examples—accident-proneness and threat of suicide—will suffice to illustrate the danger of ignoring *any* signal of maladjustment. Studies of *accident-prone* children reveal that they frequently suffer from repeated and severe frustrations and turn their aggressions outward, thus becoming overactive, impulsive, adventuresome, and anxious for attention and approval. They often feel insecure and this prompts them to bid for attention by doing foolhardy things which often lead to an accident. Boys who suffer from feelings of inadequacy because they are sex inappropriate in appearance are so anxious to prove their sex appropriateness by "stunting" and other bids for attention that they throw caution to the wind and have accidents. That accident-proneness is a danger signal of maladjustment has been emphasized by Manheimer and Mellinger: "Children who have few accidents differ in *degree*

Box 18–8

CHARACTERISTICS OF THE WELL-ADJUSTED PERSON

- Able and willing to assume responsibilities appropriate to his age
- Participates with pleasure in experiences belonging to each successive age level
- Willingly accepts the responsibilities pertaining to his role in life
- Attacks problems that require solution
- Enjoys attacking and eliminating obstacles to his happiness
- Makes decisions with a minimum of worry, conflict, and advice seeking
- Abides by a choice he makes until convinced it is a wrong choice
- Gets major satisfactions from real rather than imaginary accomplishments
- Can use thinking as a blueprint for action, not as a device for delaying or escaping action
- Learns from defeats instead of finding excuses for them
- Does not magnify successes or apply them to unrelated areas
- Knows how to work when working and to play when playing
- Can say "No" to situations harmful to his best interests
- Can say "Yes" to situations that will ultimately aid him
- Can show anger directly when injured or when rights are violated
- Can show affection directly and appropriate in kind and amount
- Can endure pain and emotional frustration when necessary
- Can compromise when he encounters difficulties
- Can concentrate his energies on a goal that is important to him
- Accepts the fact that life is an endless struggle.

but not in *kind* from children who have many accidents or others who have none" (106).

Accident-proneness should not be ignored, not only because an accident may leave a permanent physical scar or even lead to death, but also because an accident may leave a serious psychological scar. Children who have repeated accidents begin to question their adequacy, and this intensifies an already-existing feeling of incompetence and inferiority. Inferiority complexes are often intensified by accident-proneness.

While young children may *threaten to commit suicide* when they are angry at parents who refuse to permit them to do what they want to do, older children are often impulsive enough to try to commit suicide in the hope of frightening their parents and gaining a means of manipulating them in the future. If children found, when they were younger, that threats "worked" but are now losing their effectiveness, they may take a bold step and actually try to commit suicide. This is the real danger of ignoring suicide threats and of failing to recognize how serious a sign of maladjustment it is.

Persistence of Maladjustments. Once a pattern of maladjustive behavior appears, it is likely to persist. As Bennett (23) has stated:

> *Maladjustive behavior shows a tenacious tendency to remain maladjustive. Forms of activity that succeed in doing the individual far more harm than good remain in operation even in the face of the strongest psychotherapeutic efforts. Minor forms of maladjustive behavior become permanent fixtures in the totality of an individual's behavior and often remain throughout his lifetime. Small things, insignificant in themselves, pile up and add burdens to the day-to-day existence and drain efficiency.*

Unless minor disturbances are discovered and remedial measures taken to correct them, they are likely to develop into handicapping disorders. Children can be helped to improve their adjustments by gaining better insight into themselves and a more realistic concept of their abilities. But improvement

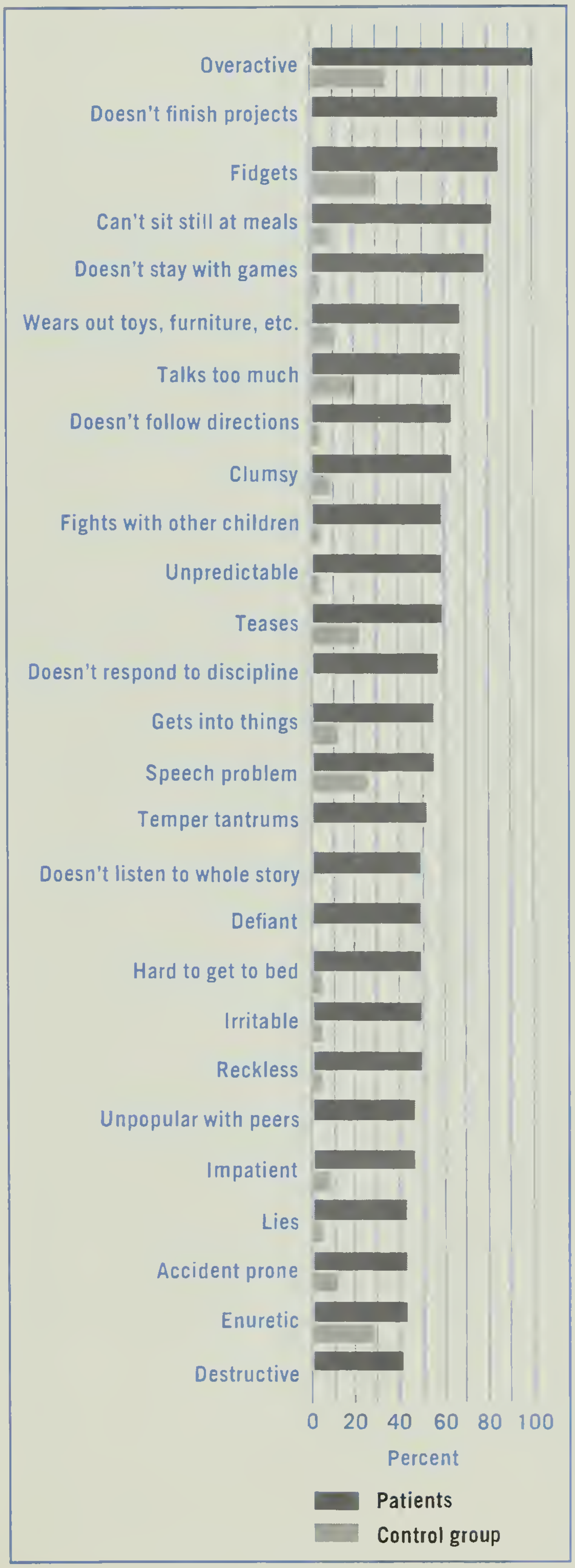


Figure 18–4. Some of the characteristic traits of the hyperactive-child syndrome. (From Hyperactive Children by Mark A. Stewart. Copyright © 1970 by Scientific American, Inc. All rights reserved.)

is far from easy as long as they remain in the environment that has fostered their unrealistic self-concepts or maladjustive patterns of behavior.

If the teacher condones cheating and clowning, for example, the child will regard these as approved patterns of behavior and will repeat them until they become habitual. Similiarly, when parents condone aggressive attacks on siblings or overlook lies, these will become the child's characteristic way of adjusting. It is thus apparent that the environment helps to determine whether the child learns approved or deviant behavior patterns and whether he will become well adjusted or maladjusted (172).

Role of Self-acceptance in Adjustment

No child can make good personal or social adjustments if he dislikes himself. On the other hand, when a person likes himself reasonably well, he will behave in a manner that will lead to social acceptance. The more others like and accept him, the better he will like himself and the more self-acceptant he will become. That is why the personality pattern tends to be persistent, with changes mainly of a quantitative type.

MEANING OF SELF-ACCEPTANCE

A person who is self-acceptant likes and, therefore, accepts himself just as he accepts as friends others whom he likes. In describing the components of a self-accepting attitude, Jersild has pointed out that it consists of being able to live fairly comfortably with one's emotions; of having confidence in one's abilities to cope with life; of being willing to assume responsibilities and the challenge of one's abilities without reaching for the impossible; and of having a healthy regard for one's rights and for oneself as a worthy person, even if not perfect. Self-acceptance does not mean smug self-satisfaction, but rather the willingness to face the facts and conditions of life, whether favorable or unfavorable, as candidly and as fully as possible (83).

By contrast, a self-rejectant attitude is one which causes the person to dislike himself. Just as the child rejects as a playmate or friend another child he dislikes, so he rejects himself when he feels that he is not what he wants to be. Thus, if the child's self-concept is to his liking, he will accept himself. If it is not, he will dislike and reject himself.

No one, at any age, is consistently self-acceptant or self-rejectant. Self-acceptance is greatly influenced by the environment and by the attitudes of significant people. It is, therefore, logical that the degree of self-acceptance the child experiences will vary from time to time. The important point is that *there must be a degree of consistency in his self-acceptance if he is to make good adjustments.*

AGE DIFFERENCES IN SELF-ACCEPTANCE

At certain times if life, self-acceptance is easy for a child, and at others, it is almost impossible. Often, the child's self-acceptance depends on the attitudes of other people toward him and his behavior *at that age.* It is easy, for example, for a baby to be self-acceptant; everyone accepts him or at least behaves in such a manner that he assumes they do. As he grows older, he discovers that he is less well accepted than before. In place of demonstrations of love come punishments and harsh, critical words and frowns. Interpreting them to mean rejection, he begins to have a less and less favorable opinion of himself. He accepts himself less and rejects himself more.

The low point in family and social relationships for the child generally comes at puberty. Self-acceptance likewise reaches its low point then. Whether there will be an improvement as time goes on will depend largely on the kind of social adjustments the adolescent makes in the home, in school, and with members of the peer group.

Self-evaluations of children as they grow older have revealed that they rate themselves less favorably than they are rated by their teachers and by members of the peer group. This is illustrated in Figure 18–5. The poor opinion older children have of themselves stems largely from the way they are treated by the different social groups with which they come in contact in their daily lives. It is also influenced by the discrepancy between what they would like to be and what they perceive to be the opinions of others (6, 51).

OBSTACLES TO SELF-ACCEPTANCE

Two common but very serious obstacles limit self-acceptance. The *first* is the tendency of almost every child to develop an ideal self-concept that is unrealistic in terms of his capacities. As was noted in the discussion of ideal self-concepts in Chapter 13, this is often encouraged by parents and teachers who believe that it serves as a source of motivation.

A child who is encouraged to picture himself as a leader in the peer group and at the top of his class academically will be bitterly disappointed when he is not chosen for leadership roles or when his grades put him far below the top of his class. The larger the gap between the real self-concept and the ideal self-concept, the harder it is to be self-acceptant.

Each year, as the child becomes more personality-conscious, he becomes more anxious to be like his ideal self and less satisfied with his real self. As a result, he becomes increasingly self-rejectant. If the child is to have a healthy personality, he must have an image of himself which, as Frank has explained, he can "accept and live with without feeling too guilty, anxious or hostile, without being self-defeated or destructive of others" (60).

The *second* major obstacle to self-acceptance comes from the dissatisfaction that results when the child compares himself with his age-mates. Or the dissatisfaction may come when parents and teachers compare the child unfavorably with siblings or classmates. If a parent constantly tells a younger sibling that he should act his age like an older sibling, that he should get as good grades in school as an older sibling, or that he should be as neat and tidy about his possessions, he cannot help feeling that he is inferior—a feeling that encourages self-rejection.

AIDS TO SELF-ACCEPTANCE

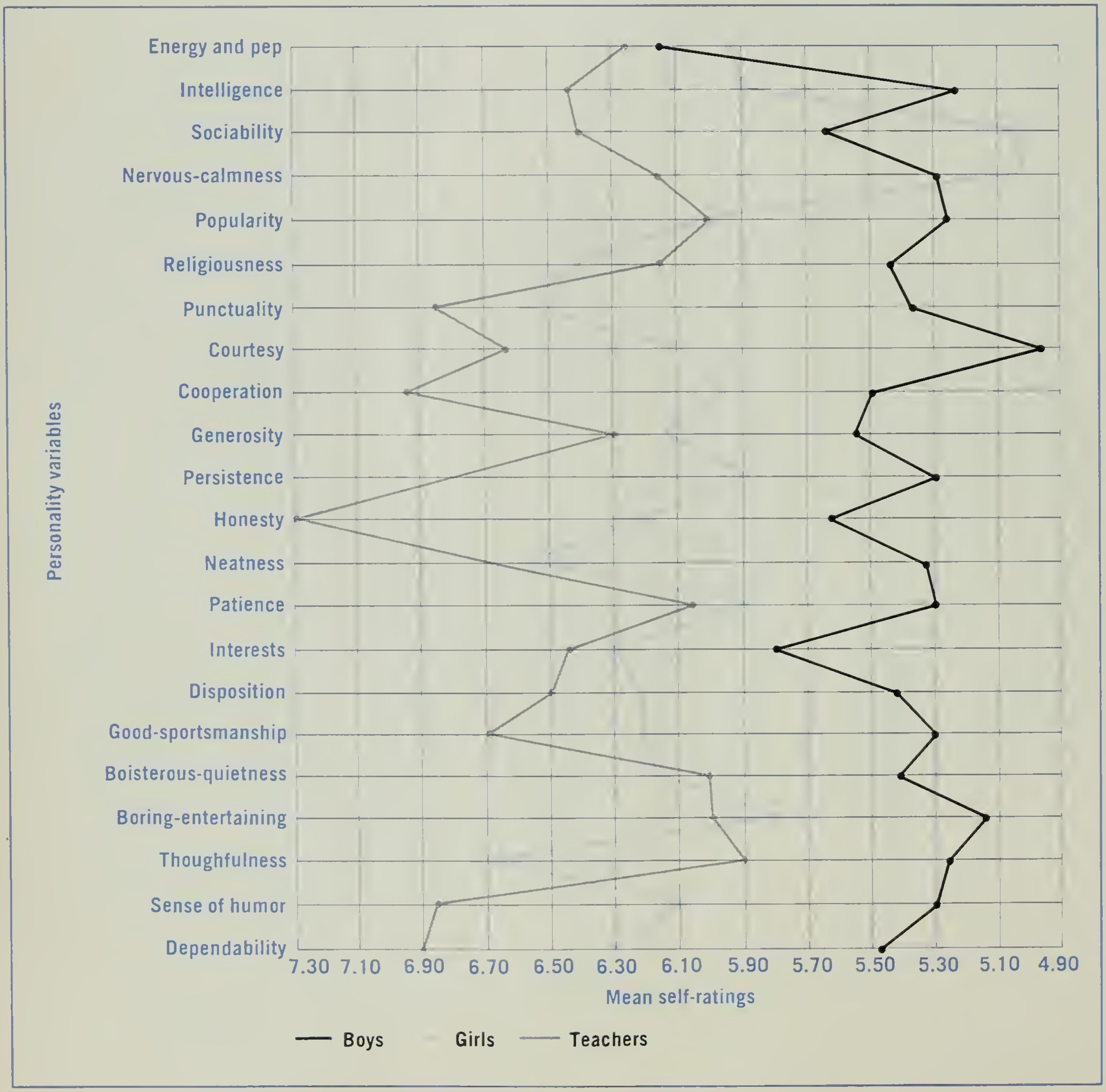
Self-acceptance is aided by a number of factors which help the child develop a satisfactory self-concept and close the gap between his real and ideal

Box 18-9

DANGER SIGNALS OF MALADJUSTMENT

- Flying into a rage on the slightest provocation
- Showing signs of excessive worry and anxiety
- Frequently appearing depressed and rarely smiling or joking
- Repeated stealing of small articles, despite severe punishment
- Frequently appearing to be lost in daydreams
- Showing very sensitive reactions to real or imagined slights
- Excessive cruelty to younger or smaller children or animals
- Abnormal anxiety about achieving perfection
- Frequent expression of the idea that he is punished more than others
- Inability to avoid misbehavior even when repeatedly warned and punished
- Excessive concern with physical appearance.
- Habitual lying to suit some purpose
- Extreme indecisiveness in making relatively minor choices
- Hostility toward any kind of authority
- Accident-proneness
- Finicky appetite and food fads
- Enuresis
- Running away
- Hypercritical and self-righteous
- Diffuse hyperactivity
- Talking about or attempting suicide
- Repeated acts of destruction
- Teasing and bullying others when feeling rejected
- Homesickness when away from familiar people and places
- Clowning to attract attention
- Projecting blame on others and rationalizing acts when criticized
- Tattling on others to win adult attention and approval
- Sour-grapes attitude—covering up disappointment by minimizing the value of unattainable things

Figure 18–5. Self-ratings of elementary-school boys and girls and of their teachers. Note the tendency for boys to rate themselves less favorably than girls do, and for children of both sexes to have poorer opinions of themselves than teachers do. (Adapted from Sister M. Amatora, Comparisons in self-evaluation in personality, J. soc. Psychol.*, 1955,* **42**, *315–321. Used by permission.)*



self-concepts. The following factors are the most important.

Realistic Aspirations. The child must be realistic about himself and not aim for the impossible. His hopes for, and demands upon, himself must be kept within the limits of his achievement. This does not mean that he should lack ambition or set his goals below his capacities. It does mean that he must set goals within his potentials, even though his potentials are lower than he would like them to be.

The child should be encouraged to develop success factors as well as realistic aspirations. Success factors will enable him to make the most of his potentials so that he can more closely approach the ideal he sets for himself. If, for example, he learns to take the initiative instead of waiting to be told what to do and how to do it, if he learns to be accurate and painstaking in whatever he undertakes, and if he is cooperative and willing to do his share, or even more than his share, his chances of successful achievement will be greatly increased.

Self-understanding. The child who understands himself does not merely recognize facts about himself; he also perceives the significance of these facts. To be self-accepting, for example, the child who is physically handicapped must not only realize that his handicap cuts him off from many activities but also realize that it does not cut him off from *everything.* There are some activities that he can enjoy with his peers, and he can make his contribution to the enjoyment of the group through them.

Each year, the child should be able to appraise himself—his abilities and his disabilities—with greater accuracy. If he can accept this realistically appraised self, he will make good social adjustments. The poorly adjusted child, by comparison, either overestimates himself or feels inadequate and rebels against accepting the concept of himself which he realizes falls short of his ideal.

Social Insight. The child who lacks social and self insight makes poorer adjustments and is less acceptable to the peer group than the child whose perception of self is close to the percept others have of him. By being able to see himself as others do, he can guide his behavior to conform to social expectations and thus increase his social acceptance.

By contrast, a marked discrepancy between the opinions others have of him and the opinion the child has of himself will lead to behavior that antagonizes others and thus lowers their opinion of him. The less accepted he is by others, the harder it is for him to accept himself.

Stable Self-concept. The child who sees himself one way at one time and another way at another time—sometimes favorably and sometimes unfavorably—is ambivalent about himself. For the child to be self-acceptant, his self-concept must be *both stable and favorable.* A stable self-concept composed mainly of negative concepts will lead to self-rejection. For the child to achieve a favorable as well as a stable self-concept, the people who are most significant in his life, mainly family members, teachers, and peers, must regard him in a favorable way most of the time. Their view forms the basis for the mirror image he has of himself.

Relation of Self-acceptance to Happiness

To be happy, a child must make good adjustments; to make good adjustments, he must be self-acceptant. As Williams and Cole have remarked, "Few factors are more fundamental to a child's success and happiness in life than his evaluation and acceptance of self" (179).

Traditional beliefs to the contrary, there is evidence that happiness in childhood comes mostly from human relationships, not from material possessions or from freedom from responsibility (79, 143, 144, 180). While material possessions that have prestige in the eyes of the peer group add to happiness by increasing the child's chances of gaining social acceptance, and while freedom from home and other responsibilities gives the child time to be with the peer group, these factors by themselves are of little consequence in providing happiness in the childhood years.

THE THREE A's OF HAPPINESS

At every age, there are three essentials to happiness. These are often referred to as the "Three A's of Happiness": Acceptance, Affection, and Achievement.

Because of the high value placed on social acceptance in the American culture of today, no child can be happy if he lacks *acceptance.* But unless he is a reasonably well-adjusted person—and this means that he must be reasonally self-acceptant—he cannot achieve acceptance. He cannot expect others to accept him if he does not accept himself. Social acceptance per se is not enough; acceptance must be by those who are important in the child's life *at that time.* When he is young, he can be happy if he feels accepted by his parents, but as he grows older, he must be accepted by his peers as well.

While acceptance and *affection* normally go hand in hand, the child must receive affection in a form which he can understand and which is appropriate for his level of development. A young child can understand affection only when it is overtly expressed, but this will embarrass an older child. Developmentally appropriate affection for the older child takes the form of an interest in him and in his activities. This he can understand, and it will not embarrass him.

Achievement will lead to happiness only if it is in an area that is important to the child at the time, and this will depend largely on what is important—or what he *believes* is important—to people who are significant in his life at that time. Even though academic achievement is valued by parents and teachers, it will not make an older child happy to get high grades unless his peers regard high grades as a worthwhile symbol of success. The more peer-oriented the child is, the more important peer-approved achievements are to his happiness.

Each of the three essentials contributes to self-acceptance, which, in turn, contributes to good adjustment, which leads to happiness. When one or more of the essentials is lacking or is too weak to affect the child's concept of himself, it will reduce his self-acceptance and lead to adjustments that will make happiness difficult or impossible.

Several examples will show how important the "Three A's of Happiness" are. Even though acceptance and affection usually go hand in hand, this is not always so. "Stars" (refer to Chap. 11), for example, are almost universally accepted and respected by the peer group, but they receive little affection from their peers. The reason is that stars, to avoid giving the impression of having favorites, tend to be cold and distant toward *all* their peers. As a result, they usually lack the close, personal friendships marked by mutual affection that less popular children enjoy. Many stars are less satisfied with their role and less happy than children who enjoy less universal acceptance.

Similarly, academic achievement will not bring peer acceptance and affection unless the child contributes to the enjoyment of the peer group by participating in their play activities. If he can achieve academic success only by devoting most of his time to his studies, he can be assured of parent and teacher acceptance and affection, but his peers are likely to resent his success and label him a "curve raiser" or "teacher's pet." Lacking the acceptance and affection of his peers—a social group that to a large extent forms the older child's mirror image—he will be deprived of two important sources of happiness.

AIDS TO ACHIEVEMENT OF HAPPINESS

There are two important aids to achieving happiness. The *first* is guidance to help the child learn to be realistic about himself and his abilities. As long as a child has an unrealistic concept of himself, he will constantly fall below his ideal; this will make him dissatisfied and unhappy. To counteract this self-dissatisfaction, he will develop defense mechanisms, often thrusting the blame for his shortcomings on others.

A realistic self-concept, on the other hand, eliminates much of the temptation to use defense mechanisms. If the child is realistic about himself, he will not expect more of himself than he is capable of. Consequently, he will not have to justify behavior that falls short of perfection.

The *second* aid to the achievement of happiness in childhood is guidance in learning how to behave in a manner that will facilitate social acceptance and affection from others. The child soon discovers that he must fit into the socially approved pattern of the group if he is to be an accepted member of it. If his personality pattern has developed along lines approved by the group, he therefore has a far better chance for successful social adjustment than the child whose personality is atypical.

No child is old enough or experienced enough to know what patterns of behavior will lead to social acceptance; nor does he know how to develop these patterns of behavior even when he discovers them, often by observation or trial and error. The child may discover, for example, that the "Silent Sams" tend to be the neglectees in the social group. As a result, he may decide that to win acceptance and affection from his peers, he must be talkative. But he is too inexperienced to know that some kinds of talk lead to social rejection. Only by being rejected will he discover that egocentric talk, boasting, and criticizing and ridiculing others are not acceptable. By then, he may have acquired such an unfavorable reputation among his peers that acceptance will be difficult.

Similarly, early guidance in learning how to play the games and sports that the peer group enjoys will help the child achieve enough success to win acceptance and be reasonably satisfied with his undertakings. Equally important, early guidance, combined with parental examples, in the display of affection for others will help the self-bound young child to become outer-bound at an age when his need for peer affection is essential to happiness. If he learns how to show affection for his peers in a developmentally appropriate way, he will receive their affection in return.

What has just been said should emphasize the fact that *childhood happiness is not in the hands of the child alone.* Parents and teachers can and should play a major role in guaranteeing the child's happiness by encouraging realistic self-concepts and by helping the child develop the patterns of behavior that are needed for happiness.

It is important that every child have a reasonably happy childhood. Childhood is the age when the foundations are laid for later life, and if the child lays foundations that guarantee happiness in childhood he will know how to achieve happiness during the remaining years of his life. For the child's sake, as well as for the good of the social group with which he will be identified, it is essential that he learn how to grow up into a happy adult.

Highlights of Chapter 18

1. Scientific study of personality has been motivated by recognition of the role personality plays in adjustment in modern life, of the important role learning plays in personality development, and of the fact that changes and modifications can be made when one's personality pattern leads to poor adjustments.

2. The two major components of the personality pattern are the concept of self—which serves as the core of the pattern—and traits.

3. The three major factors responsible for the development of the personality pattern are hereditary endowment, early experiences within the family, and events in later life.

4. Individuality, or uniqueness of the personality pattern, comes from maturation of hereditary traits and from learning, which is influenced by environmental factors.

5. Persistence in the personality pattern, which comes more from stability of the self-concept than from stability of traits, is influenced by such conditions as heredity, child training, parental values, the social environment in which the child grows up, and the child's selective attitude toward the social environment.

6. Changes in personality result from physical and environmental changes, social pressures, role changes, and professional help.

7. Personality development is influenced by many conditions, some of which affect mainly the core of the personality pattern and some of the traits which are influenced by the self-concept.

8. Scientific studies of personality determinants have revealed that the following are the most important during the childhood years: early experiences, cultural influences, physique, physical condition, intelligence, emotional states, name, successes and failures, social acceptance, status symbols, and school and family influences.

9. Most of the determinants of personality are controllable. Hence, it is possible to guide the development of the child's personality into channels that will lead to good personal and social adjustments.

10. The level of adjustment the child achieves is largely influenced by the degree to which he accepts himself and this, in turn, is influenced by how closely his real self-concept approaches his ideal self-concept.

11. Childhood maladjustments, which are characterized by self-rejection, can be spotted by many danger signals in the form of behavior atypical for the child's age and level of development.

12. Happiness in childhood comes from self-acceptance, which is dependent on social acceptance, affection from significant others, and achievements in areas which are important to the social group at that time.

Bibliography

1. Allen L., L. Brown, L. Dickinson, and K. C. Pratt: The relation of first name preferences to the frequency in the culture. *J. soc. Psychol.,* 1941, **14,** 279–293.
2. Allen, M. G.: Psychoanalytic theory on infant gratification and adult personality. *J. genet. Psychol.,* 1964, **104,** 265–274.
3. Allman, T. S., and W. F. White: Birth-order categories as predictors of select personality characteristics. *Psychol. Rep.,* 1968, **22,** 857–860.
4. Allport, G. W.: *Pattern and growth in personality.* New York: Holt. 1961.
5. Altus, W. D.: Birth order and its sequelae. *Science,* 1966, **15,** 44–49.
6. Amatora, Sister M.: Developmental trends in preadolescence and in early adolescence in self-evaluation. *J. genet. Psychol.,* 1957, **91,** 89–97.
7. Ames, L. B.: Longitudinal survey of child Rorschach responses: Younger subjects aged 2 to 10 years. *Genet. Psychol. Monogr.,* 1960, **61,** 229–289.
8. Ames, L. B.: Longitudinal survey of child Rorschach responses: Older subjects aged 10 to 16 years. *Genet. Psychol. Monogr.,* 1960, **62,** 185–228.
9. Anastasi, A.: On the formation of psychological traits. *Amer. Psychologist,* 1970, **25,** 899–910.
10. Anthony, E. J.: The behavior disorders of childhood. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 667–764.
11. Armstrong, J. D.: The search for the alcoholic personality. *Ann. Amer. Acad. pol. soc. Sci.,* 1958, **315,** 40–47.
12. Atkinson, R. M., and E. L. Ringuette: A survey of biographical and psychological features in extraordinary fatness. *Psychosom. Med.,* 1967, **29,** 121–133.
13. Backman, C. W., P. F. Secord, and J. R. Pierce: Resistance to change in the self-concept as a function of consensus among significant others. *Sociometry,* 1963, **26,** 102–111.
14. Bain, R.: Making normal people. *Marriage fam. Living,* 1954, **16,** 27–31.
15. Baird, L. L.: The achievements of bright and average students. *Educ. psychol. Measmt,* 1968, **28,** 891–899.
16. Bakwin, H., and R. M. Bakwin: *Clinical management of behavior disorders in children,* 3d ed. Philadelphia: Saunders. 1966.
17. Barclay, A., and D. R. Cusumano: Father absence, cross-sex identity, and field dependent behavior in male adolescents. *Child Develpm.,* 1967, **38,** 243–250.
18. Barman, A., and L. Cohen: The troubled child. *The New York Times,* Nov. 8, 1970.
19. Barrett-Lennard, G. T.: The mature person. *Ment. Hyg., N. Y.,* 1962, **46,** 98–102.
20. Baumrind, D.: Child care practices anteceding three patterns of preschool behavior. *Genet. Psychol. Monogr.,* 1967, **75,** 43–88.
21. Bayley, N.: Behavioral correlates of mental growth: Birth to thirty-six years. *Amer. Psychologist,* 1968, **23,** 1–17.
22. Becker, S. M., M. J. Lerner, and J. Carroll: Conformity as a function of birth order and type of group pressure. *J. Pers. soc. Psychol.,* 1966, **3,** 242–244.
23. Bennett, E. M.: A socio-cultural interpretation of maladjustive behavior. *J. soc. Psychol.,* 1953, **37,** 19–26.
24. Biller, H. B.: Father absence, maternal encouragement, and sex role development in kindergarten-age boys. *Child Develpm.,* 1969, **40,** 539–546.
25. Boshier, R.: Self-esteem and first names in children. *Psychol. Rep.,* 1968, **22,** 762.
26. Boshier, R., and P. N. Hamid: Academic success and self-concept. *Psychol. Rep.,* 1968, **22,** 1191–1192.
27. Bossard, J. H. S., and E. S. Boll: *The sociology of child development,* 4th ed. New York: Harper & Row, 1966.
28. Bragg, B. W., and V. L. Allen: Ordinal position and conformity: A role theory analysis. *Sociometry,* 1970, **33,** 371–381.
29. Brandon, S.: Eating disorders in a child population. *Psychol. Abstr.,* 1969, **43,** no. 8122.
30. Brandt, R. M.: The accuracy of self-estimate: A measure of self-concept reality. *Genet. Psychol. Monogr.,* 1958, **58,** 55–99.
31. Breckenridge, M. E., and E. L. Vincent: *Child development,* 5th ed. Philadelphia: Saunders, 1965.
32. Brodie, R. D., and M. R. Winterbottom: Failure in elementary school boys as a function of traumata, secrecy and derogation. *Child Develpm.,* 1967, **38,** 701–711.
33. Bronson, W. C.: Central orientations: A study of behavior organization from childhood to adolescence. *Child Develpm.,* 1966, **37,** 125–155.
34. Burke, P. J.: Scapegoating: An alternative role differentiation. *Sociometry,* 1969, **32,** 159–168.
35. Butterfield, E. C., and E. Zigler: The effects of success and failure on the discriminative learning of normal and retarded children. *J. abnorm. Psychol.,* 1965, **70,** 25–31.
36. Caldwell, B. M.: Assessment of infant personality. *Merrill-Palmer Quart.,* 1962, **8,** 71–81.
37. Carpenter, T. R., and T. V. Busse: Development of self-concept in Negro and white welfare children. *Child Develpm.,* 1969, **40,** 935–939.
38. Chase, J. A.: A study of the impact of grade retention on primary school children. *J. Psychol.,* 1968, **70,** 169–177.
39. Christensen, C. M.: Relationships between pupil achievement, pupil affect-need, teacher warmth, and teacher permissiveness. *J. educ. Psychol.,* 1960, **51,** 169–174.
40. Conners, C. K.: Symptom patterns in hyperkinetic, neurotic and normal children. *Child Develpm.,* 1970, **41,** 667–682.
41. Cortes, C. F., and E. S. Fleming: The effects of father absence on the adjustment of culturally disadvantaged boys. *J. spec. Educ.,* 1968, **2,** 413–420.
42. Crandall, V. J.: Achievement. 62d *Yearb. Nat. Soc. Stud. Educ.,* 1963, part 1, 416–459.
43. Craske, S.: A study of the relation between personality and accident history. *Brit. J. med. Psychol.,* 1968, **41,** 399–404.

44. Cruickshank, W. M., and G. O. Johnson: *Education of exceptional children and youth,* 2d ed. Englewood Cliffs, N. J.: Prentice-Hall, 1968.

45. Cushna, B., M. Greene, and B. C. F. Snider: First born and last born children in a child development clinic. *J. indiv. Psychol.,* 1964, **20,** 179–182.

46. Damarin, F. L., and R. B. Cattell: Personality factors in early childhood and their relation to intelligence. *Monogr. Soc. Res. Child Develpm.,* 1968, **23,** no. 6.

47. Dandes, H. M., and D. Dow: Relation of intelligence to family size and density. *Child Develpm.,* 1969, **40,** 641–647.

48. Davis, A., and R. J. Havighurst: *Father of the man.* Boston: Houghton Mifflin, 1947.

49. Davitz, J. R.: Contributions of research with children to a theory of maladjustment. *Child Develpm.,* 1958, **29,** 3–7.

50. Dreger, R. M.: Just how far can social change change personality? *J. Psychol.,* 1966, **64,** 167–191.

51. Dreyer, A. S., and D. Haupt: Self-evaluation in young children. *J. genet. Psychol.,* 1966, **108,** 185–197.

52. Durr, W. K.: Characteristics of gifted children: Ten years of research. *Gifted Child Quart.,* 1960, **4,** 75–80.

53. Emmerich, W.: Personality development and concepts of structure. *Child Develpm.,* 1968, **39,** 671–690.

54. Epstein, R., and S. S. Komorita: Self-esteem, success-failure and locus of control in Negro children. *Develpm. Psychol.,* 1971, **4,** 2–8.

55. Eysenck, H. J., and D. Cookson: Personality in primary school children. III. Family background. *Brit. J. educ. Psychol.,* 1970, **40,** 117–131.

56. Eysenck, S. B. G.: A new scale for personality measurement in children. *Brit. J. educ. Psychol.,* 1965, **35,** 362–367.

57. Feather, N. T.: Effects of prior success and failure on expectations of success and subsequent performance. *J. Pers. soc. Psychol.,* 1966, **3,** 287–298.

58. Finney, J. C.: Some maternal influences on children's personality and character. *Genet. Psychol. Monogr.,* 1961, **63,** 199–278.

59. Ford, L. H.: Reaction to failure as a function of expectancy for success. *J. abnorm. soc. Psychol.,* 1963, **67,** 340–348.

60. Frank, L. K.: Genetic psychology and its prospects. *Amer. J. Orthopsychiat.,* 1951, **21,** 506–522.

61. Garai, J. E.: Sex differences in mental health. *Genet. Psychol. Monogr.,* 1970, **81,** 123–142.

62. Gibson, R. M.: Trauma in early infancy and later personality development. *Psychosom. Med.,* 1965, **27,** 229–237.

63. Glaser, K.: Attempted suicide in children and adolescents: Psychodynamic observations. *Amer. J. Psychother.,* 1965, **19,** 220–227.

64. Goins, A. E.: Rigidity-flexibility: Toward clarification. *Merrill-Palmer Quart.,* 1962, **8,** 41–61.

65. Goldfarb, W.: Childhood psychosis. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 765–830.

66. Gorelick, M. C., and M. Sandhn: Parent perception of retarded child's intelligence. *Personnel Guid. J.,* 1967, **46,** 382–384.

67. Gottesman, I. I.: Heritability of personality. *Psychol. Monogr.,* 1963, **77,** no. 9.

68. Gowan, J. C.: Changing self-concept in exceptional children. *Education,* 1965, **85,** 374–375.

69. Greenberg, G. N., and G. H. Frank: Personality correlates of attitude change: The tendency to alter attitudes toward self in other-directed and inner-directed people. *J. gen. Psychol.,* 1967, **76,** 85–90.

70. Greene, R. L., and J. R. Clark: Adler's theory of birth order. *Psychol. Rep.,* 1970, **26,** 387–390.

71. Guardo, C. J.: Self revisited: The sense of self-identity. *J. humanist. Psychol.,* 1968, **8,** 137–142.

72. Habbe, S.: Nicknames of adolescent boys. *Amer. J. Orthopsychiat.,* 1937, **7,** 371–377.

73. Hartman, A. A., R. C. Nicolay, and J. Hurley: Unique personal names as a social adjustment factor. *J. soc. Psychol.,* 1968, **75,** 107–110.

74. Hellersberg, E. F.: Unevenness of growth and its relation to vulnerability, anxiety, ego weakness, and the schizophrenic pattern. *Amer. J. Orthopsychiat.,* 1957, **27,** 577–586.

75. Hetherington, E. M.: Effects of paternal absence on sex-typed behaviors in Negro and white preadolescent males. *J. Pers. soc. Psychol.,* 1966, **4,** 87–91.

76. Horowitz, E.: Reported embarrassment memories of elementary school, high school and college students. *J. soc. Psychol.,* 1962, **56,** 317–325.

77. Hundleby, J. D., and R. B. Cattell: Personality structure in middle childhood and the prediction of school achievement and adjustment. *Monogr. Soc. Res. Child Develpm.,* 1968, **33,** no. 5.

78. Hunt, R. G., and T. K. Lin: Accuracy of judgments of personal attributes from speech. *J. Pers. soc. Psychol.,* 1967, **6,** 450–453.

79. Illingworth, R. S.: How to help a child to achieve his best. *J. Pediat.,* 1968, **73,** 61–68.

80. Isen, A. M.: Success, failure, attention, and reaction to others: The warm glow of success. *J. Pers. soc. Psychol.,* 1970, **15,** 294–301.

81. Jamieson, B. D.: The influence of birth order, family size, and sex differences on risk-taking behavior. *Brit. J. soc. clin. Psychol.,* 1969, **8,** 1–8.

82. Jenkins, R. L.: Classification of behavior problems of children. *Amer. J. Psychiat.,* 1969, **125,** 1032–1039.

83. Jersild, A. T.: *Child psychology,* 6th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

84. Johnson, H. H.: Some effects of discrepancy level on response to negative information about one's self. *Sociometry,* 1966, **29,** 52–66.

85. Jones, M. C.: Psychological correlates of somatic development. *Child Develpm.,* 1965, **36,** 899–911.

86. Jones, S. C., and J. D. Schneider: Certainty of self-appraisal and reactions to evaluations from others. *Sociometry,* 1968, **31,** 395–403.

87. Kagan, J.: Body build and conceptual impulsivity in children. *J. Pers.* 1966, **34,** 118–128.

88. Kagan, J., and H. A. Moss: *Birth to maturity: A study in psychological development.* New York: Wiley, 1962.

89. Katz, F. M.: The meaning of success: Some differences in value systems of social class. *J. soc. Psychol.,* 1964, **62**, 141–148.
90. Keene, J. J.: Religious behavior and neuroticism, spontaneity, and world-mindedness. *Sociometry,* 1967, **30**, 137–157.
91. Kelly, E. L.: Consistency of the adult personality. *Amer. Psychologist,* 1955, **10**, 659–681.
92. King, G. F., and M. Schiller: Ego strength and type of defensive behavior. *J. consult. Psychol.,* 1960, **24**, 215–217.
93. Landis, J. T.: Personality: A 1954 view. *J. Home Econ.,* 1954, **46**, 459–462.
94. Landy, F., B. G. Rosenberg, and B. Sutton-Smith: The effect of limited father absence on cognitive development. *Child Develpm.,* 1969, **40**, 941–944.
95. LaPouse, R.: The epidemiology of behavior disorders in children. *Amer. J. Dis. Children,* 1966, **111**, 594–599.
96. Lawton, G.: *Aging successfully.* New York: Columbia, 1951.
97. Lefkowitz, M. M., and J. Cannon: Physique and obstreperous behavior. *J. clin. Psychol.,* 1966, **22**, 172–174.
98. Levinson, B. M.: The inner life of the extremely gifted child, as seen from the clinical setting. *J. genet. Psychol.,* 1961, **99**, 83–88.
99. Long, B. H., E. H. Henderson, and R. C. Ziller: Developmental changes of the self-concept during middle childhood. *Merrill-Palmer Quart.,* 1967, **13**, 201–215.
100. Longstreth, L. E.: Birth order and avoidance of dangerous activities. *Develpm. Psychol.,* 1970, **2**, 154.
101. Lorber, N. M.: Inadequate social acceptance and disruptive classroom behavior. *J. educ. Res.,* 1966, **59**, 360–362.
102. Ludwig, D. J., and M. L. Maehr: Changes in self-concept and stated behavior preferences. *Child Develpm.,* 1967, **38**, 453–467.
103. Lunneborg, P. W.: Birth order, aptitude, and achievement. *J. consult. clin. Psychol.,* 1968, **32**, 101.
104. MacDonald, A. P.: Manifestations of differential levels of socialization by birth order. *Develpm. Psychol.,* 1969, **1**, 485–492.
105. Mahrer, A. R.: Childhood determinants of adult functioning: Strategies in the clinical research use of the personal-psychological history. *Psychol. Rec.,* 1969, **19**, 39–46.
106. Manheimer, D. I., and G. D. Mellinger: Personality characteristics of the child accident repeater. *Child Develpm.,* 1967, **38**, 491–513.
107. McDavid, J. W., and H. Harari: Stereotyping of names and popularity in grade-school children. *Child Develpm.,* 1966, **37**, 453–459.
108. McReynolds, P.: The motives to attain success and to avoid failure: Historical note. *J. indiv. Psychol.,* 1968, **24**, 157–161.
109. Medley, D. M.: Teacher personality and teacher-pupil rapport. *J. teacher Educ.,* 1961, **12**, 152–156.
110. Messer, A. A.: The only-child syndrome. *The New York Times,* Feb. 25, 1968.
111. Mischel, W.: Continuity and change in personality. *Amer. Psychologist,* 1969, **24**, 1012–1018.
112. Morton, G. M.: The psychology of dress. *J. Home Econ.,* 1926, **18**, 584–586.
113. Munn, N. L.: *The evolution and growth of human behavior,* 2d ed. Boston: Houghton Mifflin, 1966.
114. Murherjee, B. N.: Birth order and verbalized need for achievement. *J. soc. Psychol.,* 1968, **75**, 223–229.
115. Murphy, L. B.: Coping devices and defense mechanisms in relation to ego functions. *Bull. Menninger Clinic,* 1960, **24**, 144–153.
116. Murphy, W. F.: A note on the significance of names. *Psychoanal. Quart.,* 1957, **26**, 91–106.
117. Neilon, P.: Shirley's babies after fifteen years: A personality study. *J. genet. Psychol.,* 1948, **73**, 175–186.
118. Neuringer, C., and L. W. Wandke: Interpersonal conflicts in persons of high self-concept and low self-concept. *J. soc. Psychol.,* 1966, **68**, 313–322.
119. Nisbet, R. E.: Birth order and participation in dangerous sports. *J. Pers. soc. Psychol.,* 1968, **8**, 351–353.
120. Oden, M. H.: The fulfillment of promise: 40-year follow-up of the Terman gifted group. *Genet. Psychol. Monogr.,* 1968, **77**, 3–93.
121. Orgel, S. Z., and J. Tuckman: Nicknames of institutionalized children. *Amer. J. Orthopsychiat.,* 1935, **5**, 276–285.
122. Ozehosky, R. J., and E. T. Clark: Children's self-concept and kindergarten achievement. *J. Psychol.,* 1970, **75**, 185–192.
123. Pederson, D. R., and R. C. McEwan: Children's reactions to failure as a function of instructions and goal distance. *J. exp. Child Psychol.,* 1970, **9**, 51–58.
124. Perkins, C. W., and D. T. Shannon: Three techniques for obtaining self-perceptions in preadolescent boys. *J. Pers. soc. Psychol.,* 1965, **2**, 443–447.
125. Perkins, H. V.: Factors influencing changes in children's self-concepts. *Child Develpm.,* 1958, **29**, 221–230.
126. Peterson, D. R.: Behavior problems of middle childhood. *J. consult. Psychol.,* 1961, **25**, 205–209.
127. Phillips, B. N.: Problem behavior in the elementary school. *Child Develpm.,* 1968, **39**, 895–903.
128. Rainwater, L.: A study of personality differences between middle and lower class adolescents: The Szondi Test in culture-personality research. *Genet. Psychol. Monogr.,* 1956, **54**, 3–86.
129. Reali, N., and V. Hall: Effect of success and failure on the reflective and impulsive child. *Develpm. Psychol.,* 1970, **3**, 392–402.
130. Rheingold, H. L.: The measurement of maternal care. *Child Develpm.,* 1960, **31**, 565–576.
131. Ringness, T. A.: Emotional adjustment of academically successful and nonsuccessful bright ninth grade boys. *J. educ. Res.,* 1965, **59**, 88–91.
132. Robbins, P. R.: Personality and psychosomatic illness: A selective review of research. *Genet. Psychol. Monogr.,* 1969, **80**, 51–90.
133. Roberts, K. E., and V. V. Fleming: Persistence and change in personality patterns. *Monogr. Soc. Res. Child Develpm.,* 1944, **8**, no. 3.
134. Robinson, H. B., and N. M. Robinson: Mental retardation. In P. H. Mussen (ed.): *Carmichael's manual of child psychology,* 3d ed. New York: Wiley, 1970, vol. 2, pp. 615–666.
135. Ryan, M. S.: *Clothing: A study in*

human development. New York. Holt. 1966.

136. Ryback. D.: Optimism-pessimism as a consequence of success or failure in children. *Psychol. Rep.*, 1970. **26**, 385.

137. Ryle. A., D. A. Pond. and M. Hamilton: The prevalence and patterns of psychological disturbance in children of primary age. *J. child Psychol. Psychiat.*, 1965. **6**, 101–113.

138. Sampson. E. E., and F. H. Hancock: An examination of the relationship between ordinal position. personality and conformity. *J. Pers. soc. Psychol.*, 1967. **5**. 396–407.

139. Sarason, S. B., and T. Gladwin: Psychological and cultural problems in mental subnormality: A review of research. *Genet. Psychol. Monogr.*, 1957. **57**, 3–290.

140. Schachter. F. F., A. Cooper. and R. Gordet: A method for assessing personality development for follow-up evaluations of the preschool child. *Monogr. Soc. Res. Child Develpm.*, 1968, **33**, no. 3.

141. Schaefer, E. S., and N. Bayley: Consistency of maternal behavior from infancy to preadolescence. *J. abnorm. soc. Psychol.*, 1960. **61**, 1–6.

142. Schneider, D. J.: Tactical self-presentation after success and failure. *J. Pers. soc. Psychol.*, 1969, **13**, 262–268.

143. Sells. S. B. (ed.): *The definition and measurement of mental health.* Washington, D. C.: U. S. Government Printing Office, 1966.

144. Senn, M. J. E., and A. J. Solnit: *Problems in child behavior and development.* Philadelphia: Lea & Febiger. 1968.

145. Shaffer, L. F., and E. J. Shoben: *The psychology of adjustment.* 2d ed. Boston: Houghton Mifflin. 1956.

146. Shechtman. A.: Age patterns in children's psychiatric symptoms. *Child Develpm.*, 1970. **41**, 683–693.

147. Shinn. M. W.: *Notes on the development of a child.* Berkeley: University of California Press. 1909.

148. Shirley. M. M.: The impact of the mother's personality on the young child. *Smith Coll. Stud. soc. Wk.*, 1941, **12**, 15–64.

149. Shrader, W. K., and T. Leventhal: Birth order of children and parental report of problems. *Child Develpm.*, 1968. **39**, 1165–1175.

150. Siegman, A. W.: Father absence during early childhood and antisocial behavior. *J. abnorm. Psychol.*, 1966. **71**, 71–74.

151. Slovic. P.: Risk-taking in children: Age and sex differences. *Child Develpm.*, 1966. **37**, 169–176.

152. Smith, M. E.: A comparison of certain personality traits rated in the same individuals in childhood and fifty years later. *Child Develpm.*, 1952, **23**, 159–180.

153. Soares. A. T., and L. M. Soares: Self-perceptions of culturally disadvantaged children. *Amer. educ. Res. J.*, 1969. **6**, 31–45.

154. Solomon, J. C.: Neuroses of school teachers. *Ment. Hyg., N. Y.*, 1960. **44**, 79–90.

155. Sontag. L. W.: Implications of fetal behavior and environment for adult personalities. *Ann. N. Y. Acad. Sci.*, 1966. **132**, 782–786.

156. Southern, L. L., and W. T. Plant: Personality characteristics of very bright adults. *J. soc. Psychol.*, 1968. **75**, 119–126.

157. Stagner, R.: *Psychology of personality.* 3d ed. New York: McGraw-Hill. 1961.

158. Steiner. I. D.: Reactions to adverse and favorable evaluations of one's self. *J. Pers.*, 1968. **36**, 553–563.

159. Stendler, C. B.: The learning of certain secondary drives by Parisian and American children. *Marriage fam. Living*, 1954. **16**, 195–200.

160. Stevenson. I.: Is the human personality more plastic in infancy and childhood? *Amer. J. Psychiat.*, 1957. **114**, 152–161.

161. Stewart, M. A.: Hyperactive children. *Scient. American*, 1970. **222**, no. 4, 94–98.

162. Stewart, R. H.: Birth order and dependency. *J. Pers. soc. Psychol.*, 1967, **6**, 192–194.

163. Storey. A. G.: Acceleration. deceleration. and self-concepts. *Alberta J. educ. Res.*, 1967. **13**, 135–142.

164. Stott, L. H.: The persisting effects of early family experiences upon personality development. *Merrill-Palmer Quart.*, 1957, **3**, 145–159.

165. Strang, R. M.: How children and adolescents view their world. *Ment. Hyg., N. Y.*, 1954, **38**, 28–33.

166. Strunk, O.: Attitudes toward one's name and one's self. *J. indiv. Psychol.*, 1958, **14**, 64–67.

167. Symonds, P. M.: Pupil evaluation and self-evaluation. *Teachers Coll. Rec.*, 1952. **54**, 138–149.

168. Thompson. C.: Concepts of the self in interpersonal theory. *Amer. J. Psychother.*, 1958, **12**, 5–17.

169. Very, P. S., and N. P. Van Hine: Effects of birth order upon personality development of twins. *J. genet. Psychol.*, 1969, **114**, 93–95.

170. Vielhaber. D. P., and E. Gottheil: First impressions and subsequent ratings of performance. *Psychol. Rep.*, 1965. **17**, 916.

171. Waldrop. M. F., and R. Q. Bell: Effects of family size and density on newborn characteristics. *Amer. J. Orthopsychiat.*, 1966. **36**, 544–550.

172. Walker. H. M.: Empirical assessment of deviant behavior in children. *Psychology in the Schools.* 1969, **6**, 93–97.

173. Watson, D., and J. Siegel: Test anxiety, motive to avoid failure and motive to approach success. *J. exp. Res. in Personality.* 1966. **1**, 236–243.

174. Watson, G.: Some personality differences in children related to strict and permissive parental discipline. *J. Psychol.*, 1957, **44**, 227–249.

175. Wattenberg, W. W., and C. Clifford: Relation of self-concepts to beginning achievement in reading. *Child Develpm.*, 1964, **35**, 461–467.

176. Weiner, P. S.: Personality correlates of accuracy of self-appraisal in four-year-old children. *Genet. Psychol. Monogr.*, 1964, **70**, 329–365.

177. Werner, E. E., and L. M. Bachtold: Personality factors of gifted boys and girls in middle childhood and adolescence. *Psychology in the Schools*, 1969, **6**, 177–182.

178. Wheeler, C. L., and E. F. Carnes: Relationships among self-concepts, ideal self-concepts and stereotypes of probable and ideal vocational choices. *J. counsel. Psychol.*, 1968, **15**, 530–535.

179. Williams, R. L., and S. Cole: Self-concept and school adjustment. *Personnel Guid. J.*, 1968, **46**, 478–481.

180. Wilson, W.: Correlates of avowed happiness. *Psychol. Bull.,* 1967, **67**, 294–306.

181. Winkler, R. C., and R. A. Myers: Some concomitants of self-ideal discrepancy measures of self-acceptance. *J. counsel. Psychol.,* 1963, **10,** 83–86.

182. Woodworth, R. S., and D. G. Marquis: *Psychology,* 5th ed. New York: Holt, 1947.

183. Woolley, H. T.: Agnes: A dominant personality in the making. *J. genet. Psychol.,* 1925, **32,** 569–598.

184. Wylie, R. C.: *The self concept.* Lincoln: University of Nebraska Press, 1961.

185. Zax, M. E., E. L. Cowen, J. Rappaport, D. R. Beach, and J. D. Laird: Follow-up study of children identified early as emotionally disturbed. *J. consult. clin. Psychol.,* 1968, **32,** 369–374.

186. Zucker, R. A., M. Manosevitz, and R. I. Lanyon: Birth order, anxiety, and affiliation during a crisis. *J. Pers. soc. Psychol.,* 1968, **8,** 354–359.

187. Zunich, M.: Children's reactions to failure. *J. genet. Psychol.,* 1964. **104,** 19–24.

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